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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R1-ES-2022-0144; FF09E21000 FXES1111090FEDR 234]

RIN 1018–BG61

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for ʻIʻiwi

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the federally threatened ʻiʻiwi (*Drepanis coccinea*) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 275,647 acres (111,554 hectares) on the islands of Kauaʻi, Maui, and Hawaiʻi, in the State of Hawaii, fall within the boundaries of the proposed critical habitat designation. We also announce a public informational meeting and public hearing and the availability of a draft economic analysis of the proposed critical habitat designation.

DATES: *Comment submission:* We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date.

Public informational meeting and public hearing: On February 10, 2023, we will hold a public informational meeting from 6 to 6:45 p.m., Hawaii Time, followed by a public hearing from 6:45 to 8 p.m., Hawaii Time. See *Public Hearing*, in **SUPPLEMENTARY INFORMATION**, for more information.

ADDRESSES: *Written comments:* You may submit comments by one of the following methods:

(1) *Electronically*: Go to the Federal eRulemaking Portal: *https://www.regulations.gov*. In the Search box, enter FWS-R1-ES-2022-0144, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on "Comment."

(2) *By hard copy*: Submit by U.S. mail to: Public Comments Processing, Attn: FWS-R1-ES-2022-0144, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *https://www.regulations.gov*. This generally means that we will post any personal information you provide us (see **Information Requested**, below, for more information).

Availability of supporting materials: The species status report and other materials relating to this critical habitat designation, including coordinates or plot points or both from which the maps are generated, are included in the decision file and are available at *https://www.regulations.gov* under Docket No. FWS-R1-ES-2022-0144.

Public informational meeting and public hearing: We are holding the public informational meeting and public hearing via the Zoom online video platform and via teleconference. See *Public Hearing* and *Reasonable Accommodation*, below, for more information.

FOR FURTHER INFORMATION CONTACT: Earl Campbell, Project Leader, U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard Room 3–122, Honolulu, HI 96850; telephone 808–792–9400. Individuals in

the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, to the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species. Designations of critical habitat can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 et seq.).

What this document does. This rule proposes to designate approximately 275,647 acres (111,554 hectares) as critical habitat for the federally threatened ‘i‘iwi on three islands (Kaua‘i, Maui, Hawai‘i) in the State of Hawaii.

The basis for our action. Under section 4(a)(3) of the Act, if we determine that a species is an endangered or threatened species we must, to the maximum extent prudent and determinable, designate critical habitat. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national

security, and any other relevant impacts of specifying any particular area as critical habitat.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native Hawaiian organizations, the scientific community, industry, or any other interested parties concerning this proposed rule.

We particularly seek comments for the islands of Kauaʻi, Maui, and Hawaiʻi, in the State of Hawaii concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Act (16 U.S.C. 1531 et seq.), including information regarding the following factors that the current regulations identify as reasons why designation of critical habitat may be not prudent:

(a) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(b) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(c) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(d) No areas meet the definition of critical habitat; or

(e) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

In addition, we seek comment regarding whether and how this information would differ under the factors that the pre-2019 regulations identify as reasons why designation of critical habitat may be not prudent.

(2) Specific information on:

(a) The amount and distribution of ʻiʻiwi habitat;

(b) Any additional areas occurring within the range of the species in the State of Hawaii, including on the islands of Molokaʻi and Oʻahu, that should be included in the designation because they (i) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations or protection, or (ii) are unoccupied at the time of listing and are essential for the conservation of the species; and

(c) Special management considerations or protection that may be needed in the critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(d) To evaluate the potential to include areas not occupied at the time of listing, we particularly seek comments regarding whether occupied areas are adequate for the conservation of the species. Additionally, please provide specific information regarding whether or not unoccupied areas would, with reasonable certainty, contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species. We also seek comments or information regarding whether areas not occupied at the time of listing qualify as habitat for the species.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the related benefits of including or excluding specific areas.

(5) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts and any additional information regarding probable economic impacts that we should consider.

(6) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act, in particular for those based on a conservation program or plan. These may include Federal, Tribal, State, county, local, or private lands with permitted conservation plans covering the species in the area such as habitat conservation plans, safe harbor agreements, or conservation easements, or non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. Detailed information regarding these plans, agreements, easements, and partnerships is also requested, including:

(a) The location and size of lands covered by the plan, agreement, easement, or partnership;

(b) The duration of the plan, agreement, easement, or partnership;

(c) Who holds or manages the land;

(d) What management activities are conducted;

(e) What land uses are allowable; and

(f) If management activities are beneficial to the ʻiʻiwi and its habitat.

If you think we should exclude any additional areas, please provide information supporting a benefit of exclusion.

(7) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific information available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via *https://www.regulations.gov*, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov*.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov*.

Because we will consider all comments and information we receive during the comment period, our final determination may differ from this proposal. Based on the new information we receive (and any comments on that new information), our final critical

habitat designation may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, or may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion and exclusion will not result in the extinction of the species.

Public Hearing

We will hold a public informational meeting and public hearing on the date and at the times listed in **DATES**. We are holding the public informational meeting and public hearing via the Zoom online video platform and via teleconference so that participants can attend remotely. To listen and view the meeting and hearing via Zoom, listen to the meeting and hearing by telephone, or provide oral public comments at the public hearing via Zoom or by telephone, you must register. For information on how to register, or if you encounter problems joining Zoom the day of the meeting, visit *https://empsi.zoom.us/webinar/register/WN_kg1fCOfUTxOXaznf1ezIig*. Registrants will receive the Zoom link and the telephone number for the public informational meeting and public hearing. If applicable, interested members of the public not familiar with the Zoom platform should view the Zoom video tutorials (*https://support.zoom.us/hc/en-us/articles/206618765-Zoom-video-tutorials*) prior to the public informational meeting and public hearing.

The public hearing will provide interested parties an opportunity to present verbal testimony (formal, oral comments) on this proposed rule. While the public informational meeting will be an opportunity for dialogue with the Service, no such opportunity will be available at the public hearing. The purpose of the public hearing is to provide a forum for accepting formal verbal testimony, which will then become part of the record for the proposed rule. In the event there is a large attendance, the time allotted for verbal testimony may be limited. Therefore, anyone wishing to provide verbal testimony at the public hearing is encouraged to provide a prepared written copy of their statement to us

through the Federal eRulemaking Portal or by U.S. mail (see **ADDRESSES**, above). There are no limits on the length of written comments submitted to us. Again, anyone wishing to provide verbal testimony at the public hearing must register before the hearing (*https://empsi.zoom.us/webinar/register/WN_kg1fCOfUTxOXaznf1ezIig*). The use of a virtual public hearing is consistent with our regulations at 50 CFR 424.16(c)(3).

Reasonable Accommodation

The Service is committed to providing access to the public informational meeting and public hearing for all participants. Closed captioning will be available during the public informational meeting and public hearing. Further, a full audio and video recording and transcript of the public hearing will be posted online at *https://www.fws.gov/pacificislands* after the hearing. Participants will also have access to live audio during the public informational meeting and public hearing via their telephone or computer speakers. Persons with disabilities requiring reasonable accommodations to participate in the meeting and/or hearing should contact the person listed under **FOR FURTHER INFORMATION CONTACT** at least 5 business days prior to the date of the meeting and hearing to help ensure availability. An accessible version of the Service's public informational meeting presentation will also be posted online at *https://www.fws.gov/pacificislands* prior to the meeting and hearing (see **DATES**, above). See *https://www.fws.gov/pacificislands* for more information about reasonable accommodation.

Previous Federal Actions

Please refer to the final listing rule for the ʻiʻiwi, which published in the *Federal Register* on September 20, 2017 (82 FR 43873), for a detailed description of previous Federal actions concerning this species.

Peer Review

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our proposed critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat. We will consider all comments and information we receive during the comment period on this proposed rule during our preparation of a final determination. Accordingly, our final decision may differ from this proposal.

Background

The ʻiʻiwi is a bird endemic to the Hawaiian Islands whose name is often anglicized to "iiwi." We prefer to, and will, include Hawaiian language spellings, including diacritical marks, to the degree possible and appropriate in the preambles of our *Federal Register* documents. For the text to be codified in the Code of Federal Regulations (CFR), however, we will omit diacritical marks to ensure that no errors are inadvertently incorporated during the codification process.

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical

habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would likely result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement "reasonable and prudent alternatives" to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the

use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the species status report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; and (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation

planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

As discussed in the final listing rule (82 FR 43873; September 20, 2017), there is currently no imminent threat of collection or vandalism identified under Factor B for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In our species status report and final listing determination for the ʻiʻiwi, we determined that the present or threatened destruction, modification, or curtailment of

habitat or range is a threat to ‘i‘iwi and that those threats in some way can be addressed by the Act’s section 7(a)(2) consultation measures. The species occurs wholly in the jurisdiction of the United States, and we are able to identify areas that meet the definition of critical habitat. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) have been met and because the Secretary has not identified other circumstances for which this designation of critical habitat would be not prudent, we have determined that the designation of critical habitat is prudent for the ‘i‘iwi.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the ‘i‘iwi is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.”

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for the ‘i‘iwi.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the

physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define "physical or biological features essential to the conservation of the species" as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding,

reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

Habitats Representative of the Historical, Geographical, and Ecological Distributions of the Species

The ʻiʻiwi is an endemic Hawaiian forest bird belonging to the honeycreeper subfamily, Drepanidinae, of the Fringillidae (finch family). Historical abundance estimates are not available, but the ʻiʻiwi was considered one of the most common of the native forest birds in Hawaii by early naturalists and was found from sea level to the tree line across all the major islands (Banko 1981, pp. 1–2). In the late 1800s, ʻiʻiwi began to disappear from low-elevation forests due to habitat loss and avian diseases (Banko 1981, pp. 2–3), and by the mid-1900s, the species was largely absent from sea level to mid-elevation forests (Munro 1944, p. 94). Today ʻiʻiwi are no longer found on Lanai and only a few individuals may be found on Oʻahu, Molokaʻi, and west Maui. Remaining populations of ʻiʻiwi are restricted to high-elevation forests above 3,937 feet (ft) (1,200 meters (m)) on Hawaiʻi Island, east Maui, and Kauaʻi because these areas contain temperatures low enough to reduce or inhibit the spread of avian malaria and avian pox, carried by *Culex* mosquitoes. At the time of listing, the rangewide population estimate was approximately 600,000 individuals. An estimated 90 percent of ʻiʻiwi occur on Hawaiʻi Island, with the remainder distributed on east Maui (about 10 percent), and Kauaʻi (less than 1 percent).

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

ʻIʻiwi are found primarily in closed canopy, montane wet or mesic forests of tall stature, dominated by native ʻōhiʻa (*Metrosideros polymorpha*) or ʻōhiʻa and koa (*Acacia koa*) trees. ʻIʻiwi are nectarivorous; their diet consists predominantly of nectar from the flowers of ʻōhiʻa, but they may also feed on māmane (*Sophora chrysophylla*), and plants in the lobelia family (Campanulaceae) (Fancy and Ralph 1998, p. 4). They also feed

opportunistically upon insects and spiders (Fancy and Ralph 1998, pp. 4–5). The ‘i‘iwi’s long, curved bill is a result of coevolution with native Hawaiian plants in the lobelia family, which have long, curved corollas (groups of petals that encircle the reproductive structures of a flower) (Fancy and Ralph 1998, p. 4, and references therein). Hawaiian lobelioids in the subfamily Lobelioideae, provide an important food source for ‘i‘iwi and represent the largest plant radiation on any island archipelago with 126 species in six genera (Givnish et al. 2008, p. 410). However, many of Hawai‘i’s lobelioids are impacted by feral ungulates and contain few defenses against herbivory. ‘I‘iwi now feed primarily on ‘ōhi‘a flowers, which have stamens that extend 1–3 cm (0.4–1.2 in) out from the flower and give the blossoms a pompom, brush, or hairlike appearance (Fancy and Ralph 1998, p. 4). ‘I‘iwi are strong fliers that move long distances to locate nectar sources, and are well known for their seasonal movements in response to the availability of flowering ‘ōhi‘a (Fancy and Ralph 1998, p. 3.) The ‘i‘iwi’s seasonal movement to lower elevation areas in search of nectar sources is an important factor in the exposure of the species to avian diseases, particularly malaria.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

On the islands of Hawai‘i, Kaua‘i, and Maui, the three islands that currently support populations of ‘i‘iwi, the species breeds and winters in mesic and wet forests that are dominated by ‘ōhi‘a and koa trees (Fancy and Ralph 1998, p. 3). ‘I‘iwi do not demonstrate high fidelity to a local breeding area (Fancy and Ralph 1998, p. 9); rather, individual birds switch breeding sites from year to year to take advantage of localized nectar availability (Fancy and Ralph 1998, p. 9). ‘I‘iwi pairs remain together during the breeding season and defend a small area around their nest, but disperse after breeding and raising young (Fancy and Ralph 1998, p. 2). The ‘i‘iwi breeding season starts as early as October and continues through to the following August (Fancy and Ralph 1998, p. 7). However, the majority of breeding occurs from February through June, coinciding with

peak flowering of ʻōhiʻa (Fancy and Ralph 1998, p. 2). ʻIʻiwi construct cup-shaped nests comprised of twigs and lined with lichens and moss in the upper canopy of ʻōhiʻa trees at an average nest height of 23.6 ft (7.2 m) (Fancy and Ralph 1998, p. 8).

Space for Individual and Population Growth and for Normal Behavior

ʻŌhiʻa and other flowering trees and shrubs are distributed across the landscape and flower asynchronously (Ralph and Fancy 1995, pp. 735–741). ʻIʻiwi require large areas of suitable habitat for foraging. They are strong fliers that move long distances to locate nectar sources (Fancy and Ralph 1998, p. 3;). ʻIʻiwi move several miles (several kilometers) in search of large forest patches of seasonally asynchronous flowering trees or shrubs (Guillaumet et al. 2017, p. 1). ʻIʻiwi forage in flocks of two to nine ʻiʻiwi and with other Hawaiian honeycreeper species such as ʻApapane (*Himatione sanguinea*), particularly after the breeding season (Fancy and Ralph 1998, p. 7). ʻIʻiwi move according to available nector sources, and other than defending a small area around their nest when breeding, ʻIʻiwi are not territorial, nor do they have a defined home range.

Summary of Essential Physical or Biological Features

We derive the specific physical or biological features essential to the conservation of ʻiʻiwi from studies of the species' habitat, ecology, and life history as described below. Additional information can be found in the species status report (Service 2016, entire; available on *https://www.regulations.gov* at Docket No. FWS-R1-ES-2022-0144). We have determined that the following physical or biological features are essential to the conservation of ʻiʻiwi:

(1) Multiple patches of seasonally flowering trees including ʻōhiʻa and māmane and/or shrubs that collectively provide a year-round nectar source. The number of patches of flowering trees and shrubs needed may be few if patch size is large. For example, a few large contiguous areas of forest containing seasonally asynchronously flowering trees and shrubs that are several square miles (several kilometers) in size, or many small

patches with concentrated, seasonally asynchronously flowering trees and shrubs would meet the ‘i‘iwi’s year-round nectar source needs. Patches can be close together, such as individual flowering trees a few hundred feet (hundred meters) apart in an open landscape, or far apart, such as large forest patches of seasonally asynchronous flowering trees or shrubs as much as several miles (several kilometers) apart.

(2) Tall stature trees (height taller than 26 ft (8 m)) characteristic of a mesic and wet forest ecosystem, including ‘ōhi‘a and koa for nesting. We define tall stature forest as forest with a minimum canopy height of 26 ft (8 m) based on mean nest height for ‘i‘iwi of 24 feet.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. As discused above, ‘i‘iwi habitat is characterized by mesic and wet forests that are dominated by ‘ōhi‘a and koa trees. This ecosystem is a multi-layered structure of tall canopy trees, secondary shrubs (e.g., Lobelioids) and fern layers, and ground-hugging mosses and lichens. The functionality of this system is dependent on native plant regeneration, pollination, and seed dispersal. A keystone species in this system is the ‘ōhi‘a tree. ‘Ōhi‘a are specificially adapted for bird pollination because they produce copius nectar; newly secreted nectar has low sugar concentration, and flowers are predominantly red in color (Carpenter 1976, p. 1139.) Red flowers, the most common type of ‘ōhi‘a blossoms are partially self-incompatible and require an animal pollinator for high-levels of fruit set and good seed set (Carpenter 1976, p. 1134.) The Hawaiian honeycreepers, including ‘i‘iwi, serve an important role as pollinators in Hawai‘i’s mesic and wet forest ecosystem and are necessary to ensure the health of this ecosystem. Unfortunately, Hawaiian honeycreepers, especially ‘i‘iwi, are highly susceptible to avian

disease. For example, a single bite from the southern house mosquito (*Culex quinquefasciatus*) carrying avian malaria can be fatal to individuals of the Hawaiian honeycreeper genera (Atkinson et al. 1995, p. S65; Atkinson et al. 2000, p. 199). Climate change exacerbates the threat of mosquito-borne avian disease by increasing forest temperatures allowing cold-intolerant mosquitos to climb higher in elevation, constricting the range of Hawaiian honeycreepers. Degradation and fragmentation of forests caused by nonnative plants, ungulates, fire, and plant pathogens are also threats to ʻiʻiwi habitat. For a detailed discussion of threats to ʻiʻiwi and its habitat, see the final listing rule published in the *Federal Register* on September 20, 2017 (82 FR 43873).

Any stressors that result in further degradation or fragmentation of the forests on which the ʻiʻiwi relies for foraging and nesting are likely to exacerbate the impacts of avian disease on the species and directly affect habitat features which ʻiʻiwi rely on for their life history processes. These stressors include invasive plants, which outcompete and displace native ʻōhiʻa. Several species of nonnative grasses are widely documented to fuel a grass/fire cycle of intrusion into Hawaiʻi's native ʻōhiʻa forests, further degrading biodiversity. In addition, feral ungulates including pigs (*Sus scrofa*), cattle (*Bos taurus*), sheep (*Ovis aries*), and axis deer (*Axis axis*) degrade ʻōhiʻa forest habitat by spreading nonnative plant seeds, grazing and trampling native vegetation, contributing to erosion, and creating mosquito breeding habitat (Mountainspring 1986, p. 95; Camp et al. 2010, p. 198). In addition to the effects of nonnative plants and animals on ʻōhiʻa and its habitat, ʻōhiʻa forest is impacted by several diseases and natural processes including ʻōhiʻa dieback, ʻōhiʻa rust, and rapid ʻōhiʻa death caused by the *Ceratocystis* fungus.

Features essential to the conservation of ʻiʻiwi may require special management considerations to reduce the following threats: (1) extirpation of native avian pollinators by mosquito-borne diseases which negatively impact mesic and wet forest health and persistence; (2) degradation of forest habitat by nonnative ungulates; (3) establishment

and spread of habitat-altering nonnative plants; and (4) spread of nonnative pathogens including those that cause rapid ʻōhiʻa death, a fungal wilt disease.

Management actions that could minimize or ameliorate these threats include, but are not limited to, removal of mosquito breeding sources (such as application of larvicides to standing water), control or eradication of significant habitat-modifying invasive plants, ungulate removal and exclusion fencing, reduction of the spread of rapid ʻōhiʻa death and other plant pathogens, and habitat restoration to encourage multiple types of native flowering plants at higher elevations. These management actions would result in the enhancement of ʻiʻiwi breeding and foraging areas. In addition, the incompatible insect technique may be used in some areas to limit southern house mosquito populations. This technique involves the release of male southern house mosquitoes infected with *Wolbachia* bacteria, which renders them incapable of producing viable offspring when they mate with wild-type females, thereby reducing mosquito populations that carry avian diseases (Pagendam et al. 2020, entire).

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are not currently proposing to designate any areas outside the geographical area occupied by the species because we have not identified any unoccupied areas that meet the definition of critical habitat. The area of occupied ʻiʻiwi habitat fulfills the species' recovery criteria for size and distribution of forest and shrubland habitat needed for recovery (Service 2021, pp. 110-112). Therefore, the areas occupied by the ʻiʻiwi are

adequate to ensure the conservation of the species. For areas within the geographic area occupied by the species at the time of listing, we used the methodology described below to delineate critical habitat unit boundaries.

To determine the area occupied at the time of listing, we relied primarily on a summary of abundance, distribution, and trends compiled by the U.S. Geological Survey (Paxton et al. 2013, entire). This dataset represents the most recent and best available dataset for ʻiʻiwi populations. Where this summary was incomplete, specifically within the Kula region of Maui, we used information provided by the National Park Service and the Maui Forest Bird Recovery Project (Judge et al. 2019, p. 34). Rangewide, ʻiʻiwi are constrained to a narrow band of montane forest at an elevation of 4,265–6,233 ft (1,300–1,900 m). Most ʻiʻiwi are found on the island of Hawaiʻi (90 percent), followed by east Maui (about 10 percent), and Kauaʻi (less than 1 percent). Relict populations may exist on Oʻahu, west Maui, and Molokaʻi (Paxton et al. 2013, p. 10).

Within occupied areas, we identified the areas that support the highest densities of ʻiʻiwi. Areas of ʻiʻiwi abundance are proxies for patches of flowering ʻōhiʻa and other nectar sources within mesic and wet forest ecosystems. ʻIʻiwi are known to undertake seasonal movements that mirror ʻōhiʻa flowering periods. Due to the variability of mesic and wet forest ecosystems and the limitations of satellite imagery to distinguish physical and biological features, ʻiʻiwi abundance was used as a proxy for seasonal flowering ʻōhiʻa and other nectar sources. Therefore, forest bird surveys conducted during the late 1970s and early 1980s (Scott et al. 1986, entire) were our primary source of information for delineating high-density areas. More recent surveys (Paxton et al. 2013, entire) show some contraction of the species' range, particularly at lower elevations. However, the high-density bands described in Paxton et al. 2013 correspond closely with 1970s-80s density maps. Because of this close correspondence and because the older mapped densities provide more detailed information for locations of high-density populations,

both across and along the elevation contour, we relied primarily on the older dataset to delineate the highest density areas. We also considered the most recent surveys for the Kula region on Maui conducted by the National Park Service and Maui Forest Bird Recovery Project (Judge et al. 2019, p. 34).

‘I‘iwi foraging behavior required that we delineate critical habitat areas that are large enough to ensure regionally resilient populations. To ensure redundancy and representation of the species at a rangewide scale, we determined that the islands of Kaua‘i, Maui, and Hawai‘i should be included in the critical habitat designation. These three islands represent the functional distribution of the species and are separated by enough distance that if one island suffered a catastrophic population decline due to a hurricane or other environmental catastrophe, populations on other islands would likely be spared. Populations across this distribution also represent the genetic, ecological, and behavioral diversity of the species. For Maui and Hawai‘i, the two islands that support multiple populations, we also considered redundancy and representation at an island scale. Maintaining habitat to support multiple regional populations on each island safeguards against the effects of smaller-scale catastrophic events and ensures inclusion of diverse habitats that represent the behavioral and ecological diversity of the species. Based on the Scott et al. (1986) dataset, we included all areas with a maximum mapped density of 100 birds per square kilometer (birds/km^2), a density that maximized connectivity between the highest density population centers within a region, therefore promoting resiliency. This resulted in delineation of areas within seven geographical regions, i.e., critical habitat units distributed across the islands of Kaua‘i, Maui, and Hawai‘i. In addition, we delineated areas within the Kula Unit on east Maui based on the National Park Service and Maui Forest Bird Recovery Project dataset (Judge et al. 2019, p. 34), as this area was not well surveyed until recently and, therefore, was not included in the Scott et al. 1986 dataset. Next, within each of the units, we determined whether the

area delineated was large enough to support a highly resilient population of ‘i‘iwi. Although the viable population size of ‘i‘iwi is unknown, a population of 5,000 is a generalized estimate of population size required for long-term viability for a range of vertebrate species (Traill et al. 2010, p. 31). We used this estimate to ensure that, within each unit, the designation included sufficient habitat to support highly resilient populations.

We calculated the area required to support a highly resilient population by multiplying regionally specific population densities by 5,000. For all units except the Alaka‘i Plateau Unit on Kaua‘i, we used the current highest density estimate for that respective unit. In the Alaka‘i region,‘i‘iwi range contraction and population decline has been precipitous over the last 20 years due to avian disease; however, abundant habitat still exists and carrying capacity is high, therefore we used historical densities to maintain this critical habitat area for ‘i‘iwi. Specifically, we used the average of the interior and exterior survey densities for the Alaka‘i Plateau survey area from the year 2000 as the most representative of ‘i‘iwi density and habitat carrying capacity (Paxton et al. 2013, p. 57). Year 2000 survey data were used for the Alaka‘i Plateau area because this survey data point represents the most recent survey data prior to the rapid population decline of ‘i‘iwi beginning around year 2000, due primarily to avian disease.

Through further analysis, including a review of satellite imagery and the area required to support long-term viability for a range of vertebrate species (Traill et al. 2010, p. 31), we determined that two geographical regions, the West Maui region and the Kohala region on Hawai‘i Island, were not large enough to support a population of 5,000 birds. Therefore, we did not delineate critical habitat within these two regions.

Because our critical habitat areas concentrate on areas of high ‘i‘iwi density as surveyed in the 1970s and 80s, we used satellite imagery and land management information to refine the larger contiguous areas containing high ‘i‘iwi densities.

Specifically, we removed all parcels that were smaller than 1,235 acres (ac) (500 hectares (ha)), unless they were owned by a State or Federal agency, or already managed for conservation. Small private parcels were found to have negligible identified physical or biological features essential for ‘i‘iwi conservation and represented a small proportion of the area that otherwise meets our criteria for critical habitat designation. In order to provide for adequate ‘i‘iwi foraging areas encompassing one or more physical and biological features and prevent an artificial range constriction of high densities of ‘i‘iwi, the delineated critical habitat area in every region is greater than the habitat area needed to support the conservation of the species. In summary, for areas within the geographic area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

1. Habitat contains primarily mesic and wet forest ecosystem dominated by ‘ōhi‘a and koa;
2. Area has high population density of ‘i‘iwi, defined as more than 100 birds/km^2, which is a proxy for multiple patches of seasonally flowering trees including ‘ōhi‘a and māmane and/or shrubs that collectively provide a year-round nectar source; and
3. Each regional area meeting criteria 1 and 2 above is able to support at least 5,000 birds.

We then removed the smallest parcels (less than 1,235 ac (500 ha)) in private ownership within larger contiguous areas and all areas that were smaller than 62 ac (25 ha) and discontinuous from larger habitat units.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for ‘i‘iwi. The scale of the maps we prepared under the parameters for publication within the Code

of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We propose to designate as critical habitat lands that we have determined are occupied at the time of listing (i.e., currently occupied) and that contain one or more of the physical or biological features that are essential to support life-history processes of the species.

Seven units are proposed for designation based on one or more of the physical or biological features being present to support ‘i‘iwi. Some units contain only some of the physical or biological features necessary to support the ‘i‘iwi’s use of that habitat. All units contain at least one of the identified physical or biological features and support multiple life-history processes for ‘i‘iwi.

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Proposed Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *https://www.regulations.gov* at Docket No. FWS-R1-ES-2022-0144.

Proposed Critical Habitat Designation

We are proposing seven units as critical habitat for the ‘i‘iwi. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the ‘i‘iwi. The seven units we propose as critical habitat

are: (1) Alakaʻi Plateau; (2) Kula; (3) East Haleakalā; (4) Windward Hawaiʻi; (5) Kaʻū; (6) South Kona; and (7) North Kona. All units were occupied at the time of listing and are currently occupied. Table 1 shows the proposed critical habitat units, their ownership, and the approximate area of each unit.

TABLE 1. Proposed critical habitat units for ʻiʻiwi. Area estimates reflect all land within critical habitat units.

Alakaʻi Plateau (Kauaʻi Island)				
Unit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
Alakaʻi Plateau	Yes	State	10,359 (4,192)	9,262 (3,748)
Alakaʻi Plateau	Yes	Private	2,150 (870)	131 (53)
Total			**12,510 (5,063)**	**9,393 (3,801)**
Kula (Maui Island)				
Unit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
Kula	Yes	State	4,396 (1,779)	4,346 (1,759)
Kula	Yes	Private	830 (336)	825 (334)
Total			**5,226 (2,115)**	**5,171 (2,093)**
East Haleakalā (Maui Island)				
Unit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
East Haleakalā	Yes	Federal	5,670 (2,294)	5,666 (2,293)
East Haleakalā	Yes	State	10,283 (4,162)	10,265 (4,154)
East Haleakalā	Yes	Private	3,440 (1,392)	20 (8)
Total			**19,393 (7,848)**	**15,951 (6,455)**
Windward Hawaiʻi (Hawaiʻi Island)				
Unit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
Windward	Yes	Federal	34,694 (14,040)	24,061 (9,737)
Windward	Yes	State	91,547 (37,048)	36,202 (14,650)
Windward	Yes	Private	14,844 (6,007)	514 (208)
Total			**141,085 (57,095)**	**60,777 (24,595)**
Kaʻū (Hawaiʻi Island)				

Unit	Occupied	Landowner	Total area (ac (ha))	Area of overlap with existing critical habitat (ac (ha))
Kaʻū	Yes	State	32,059 (12,974)	5,498 (2,225)
Kaʻū	Yes	Private	399 (162)	0 (0)
Total			**32,458 (13,136)**	**5,498 (2,225)**
South Kona (Hawaiʻi Island)				
Unit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
South Kona	Yes	Federal	8,234 (3,332)	3,447 (1,395)
South Kona	Yes	State	8,357 (3,382)	2,861 (1,158)
South Kona	Yes	Private	34,785 (14,077)	148 (60)
Total			**51,376 (20,791)**	**6,456 (2,613)**
North Kona (Hawaiʻi Island)				
Subunit	**Occupied**	**Landowner**	**Total area (ac (ha))**	**Area of overlap with existing critical habitat (ac (ha))**
North Kona	Yes	State	9,457 (3,827)	2,982 (1,207)
North Kona	Yes	Private	4,142 (1,676)	47 (19)
Total			**13,599 (5,503)**	**3,029 (1,226)**

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the ʻiʻiwi, below.

Alakaʻi Plateau Unit

The Alakaʻi Plateau Unit consists of 12,510 ac (5,063 ha) of montane wet forest ecosystem from Kokeʻe State Park to the summit of Mount Waiʻaleʻale, in Kauaʻi County. The unit consists of State lands within Alakaʻi Wilderness Preserve, Nā Pali-Kona Forest Reserve, and Hono O Nā Pali Natural Area Reserve, and some private land. State lands comprise approximately 83 percent and private land approximately 17 percent of the Alakaʻi Plateau Unit. Approximately 75.1 percent, or 9,393 ac (3,801 ha) of the Alakaʻi Plateau Unit is within already designated critical habitat for species other than the ʻiʻiwi. This unit is essential for maintaining the geographical range of the ʻiʻiwi and, therefore, contributing to the redundancy and representation necessary for species'

recovery. In particular, the Kaua‘i ‘i‘iwi population is important for maintaining the species’ genetic diversity, as it is likely there is little or no genetic exchange between ‘i‘iwi on Kaua‘i Island and Maui Island, the nearest island to Kaua‘i with a substantial ‘i‘iwi population. ‘I‘iwi is not known to fly long distances over open water and the two islands are separated by over 200 miles (mi) (322 kilometers (km)) of open ocean. Threats identified within Alaka‘i Plateau Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering invasive plants; and the rapid ‘ōhi‘a death fungal disease. Special management considerations or protection measures to reduce or alleviate threats may include mosquito control, feral ungulate control, invasive plant control, and measures to reduce the spread of rapid ‘ōhi‘a death (see **Special Management Considerations or Protection**, above). There are five land parcels defined by landownership within Alaka’i Plateau Unit: State of Hawaii Department of Land and Natural Resources (DLNR), Alaka‘i Wilderness Preserve and Nā Pali-Kona Forest Reserve and Hono O Nā Pali Natural Area Reserve total 10,359 ac (4,192 ha); Alexander & Baldwin, Inc. total 203 ac (82 ha); and Robinson Family Partners total 1,948 ac (788 ha).

Kula Unit

The Kula Unit consists of 5,226 ac (2,115 ha) on the west slope of Haleakalā Volcano, in Maui County. This unit consists of State lands within Kula Forest Reserve and the Papa‘anui Tract of Kahikinui Forest Reserve, and some private land. State lands comprise approximately 84 percent, and private land approximately 16 percent, of the Kula Unit. Approximately 99 percent, or 5,171 ac (2,093 ha), of the Kula Unit is within already designated critical habitat for species other than the ‘i‘iwi. The Kula Unit is comprised of mixed introduced/native mesic montane forest with sub-alpine shrubland (Judge et al. 2019, p. 7), representing different habitat types than other units, which are predominantly native wet montane forest. This unit is essential for maintaining the

geographical range, as well as the ecological and behavioral diversity, of the species, therefore contributing to the redundancy and representation necessary for species' recovery. Threats identified within Kula Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; and fire. Special management considerations or protection measures to reduce or alleviate threats may include mosquito control, ungulate control, invasive plant control, and fire management planning and wildfire response (see **Special Management Considerations or Protection**, above). There are three land parcels defined by landownership within Kula Unit: DLNR, Kula Forest Reserve and Papa‘anui Tract of Kahikinui Forest Reserve total 3,518 ac (1,424 ha); DLNR, Kula Forest Reserve is 878 ac (355 ha); and Ka‘ono‘ulu Ranch is 830 ac (336 ha).

East Haleakalā Unit

The East Haleakalā Unit consists of 19,393 ac (7,848 ha) on the north and east slopes of Haleakalā Volcano, Maui County. This unit consists of Federal lands within Haleakalā National Park; State lands within Ko‘olau Forest Reserve, Hāna Forest Reserve, Kīpahulu Forest Reserve, and Hanawī Natural Area Reserve; and some private lands. Federal lands comprise approximately 29 percent, State lands approximately 53 percent, and private land approximately 18 percent of the East Haleakalā Unit. Approximately 82 percent, or 15,951 ac (6,455 ha), of the Haleakalā Unit is within already designated critical habitat for species other than the ‘i‘iwi. The Haleakalā Unit is comprised predominantly of native wet montane forest and some native sub-alpine shrubland. This unit is essential for maintaining the geographical range, as well as the ecological and behavioral diversity of the species, therefore contributing to the redundancy and representation necessary for species' recovery. Threats identified within East Haleakalā Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; and fire. Special management

considerations or protection measures to reduce or alleviate threats may include mosquito control, ungulate control, invasive plant control, and fire management planning and wildfire response (see **Special Management Considerations or Protection**, above). There are seven land parcels defined by landownership within East Haleakalā Unit: Haleakalā Ranch Company is 1,113 ac (451 ha); East Maui Irrigation, Inc. is 2,327 ac (942 ha); DLNR, Koʻolau Forest Reserve is 4,780 ac (1,934 ha); DLNR, Hanawī Natural Area Reserve is 3,145 ac (1,273 ha); DLNR, Hāna Forest Reserve is 2,006 ac (812 ha); DLNR, Kīpahulu Forest Reserve is 352 ac (142 ha); and Haleakalā National Park is 5,670 ac (2,294 ha).

Windward Hawai'i Unit

The Windward Hawai'i Unit consists of 141,085 ac (57,095 ha) on the east slopes of Mauna Kea and Mauna Loa Volcanos, Hawai'i County. This unit consists of Federal lands within Hawai'i Volcanoes National Park and Hakalau Forest National Wildlife Refuge, Hakalau Forest Unit; State lands within Kapāpala Forest Reserve, Upper Waiākea Forest Reserve, Hilo Forest Reserve, Manowaialeʻe Forest Reserve, Mauna Kea Forest Reserve, Puʻu Makaʻala Natural Area Reserve, and Laupāhoehoe Natural Area Reserve; and lands administered by the Department of Hawaiian Homelands (DHHL); and some private lands. Federal lands comprise approximately 25 percent, State lands approximately 67 percent, and private land approximately 8 percent of the Windward Hawai'i Unit. Approximately 43 percent, or 60,777 ac (24,595 ha) of the Windward Hawai'i Unit is within already designated critical habitat for species other than the ʻi'iwi. The Windward Hawai'i Unit is comprised predominantly of native wet montane forest and some higher elevations native mesic montane forest. The Windward Hawai'i Unit contains more than half of the ʻi'iwi population Statewide and has the highest ʻi'iwi densities within the State (Scott et al. 1986, p. 160). Approximately 348,579 ʻi'iwi, or 57.8 percent of the entire Statewide ʻi'iwi population occupy the Windward Hawai'i Unit

(Paxton et al. 2013, p. 10). This unit is essential for maintaining the species' geographical range, contributing to the redundancy and representation necessary for its recovery. Threats identified within Windward Hawai‘i Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; fire; and rapid ‘ōhi‘a death. Special management considerations or protection measures to reduce or alleviate threats may include mosquito control, ungulate control, invasive plant control, fire management planning and wildfire response; and measures to reduce the spread of rapid ‘ōhi‘a death (see **Special Management Considerations or Protection**, above). There are eighteen land parcels defined by landownership within Windward Hawai'i Unit: Hawai‘i Volcanoes National Park total 9,463 ac (3,830 ha) over two parcels; Kamehameha Schools total 13,308 ac (5,386 ha) over two parcels; DLNR, Kapāpala Forest Reserve is 588 ac (238 ha); DLNR, Upper Waiākea Forest Reserve and Pu‘u Maka‘ala Natural Area Reserve is 71,836 ac (29,071 ha); Hakalau Forest National Wildlife Refuge, Hakalau Forest Unit is 25,231 ac (10,211 ha) over two parcels; DLNR, Hilo Forest Reserve, Kaiwiki Section is 71 ac (29 ha); DLNR, Hilo Forest Reserve, Piha Section is 2,420 ac (979 ha); DLNR, Hilo Forest Reserve, Laupāhoehoe Section and Laupāhoehoe Natural Area Reserve is 7,680 ac (3,108 ha); Department of Hawaiian Homelands is 4,035 ac (1,633 ha) over two parcels; DLNR, Hilo Forest Reserve, Humu‘ula Section is 2,768 ac (1,120 ha); DLNR, Manowaiale‘e Forest Reserve is 672 ac (272 ha); DLNR, Mauna Kea Forest Reserve is 1,477 ac (598 ha); Kūka‘iau Ranch is 87 ac (35 ha); and Parker Ranch is 1,449 ac (586 ha).

Ka‘ū Unit

The Ka‘ū Unit consists of 32,458 ac (13,136 ha) on the southeast slope of Mauna Loa Volcano, Hawai‘i County. This unit consists of State lands within Ka‘ū Forest Reserve and Kapāpala Forest Reserve, and some private lands. State lands comprise approximately 99 percent, and private land approximately 1 percent of the Ka‘ū Unit.

Approximately 17 percent, or 5,498 ac (2,225 ha), of the Kaʻu Unit is within already designated critical habitat for species other than the ʻiʻiwi. The Kaʻū Unit is comprised of native wet montane forest in the southern portion, transitioning to native mesic montane forest in the northern portion of the unit. Native forest in the Kaʻū Unit provides habitat connectivity between ʻiʻiwi that inhabit the Windward Hawaiʻi Unit and ʻiʻiwi that inhabit the South Kona Unit. The Kaʻū Unit is essential for maintaining the geographical range of the species and redundancy and representation necessary for species' recovery. Threats identified within Kaʻū Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; fire; and rapid ʻōhiʻa death. Special management considerations or protection measures to reduce or alleviate threats may include mosquito control, ungulate control, invasive plant control, fire management planning and wildfire response; and measures to reduce the spread of rapid ʻōhiʻa death (see **Special Management Considerations or Protection**, above). There are five land parcels defined by landownership within Kaʻū Unit: DLNR, Kaʻū Forest Reserve is 31,414 ac (12,713 ha); DLNR, Kapāpala Forest Reserve is 546 ac (221 ha); DLNR, Kaʻū Forest Reserve is 99 ac (40 ha); and The Nature Conservancy total 399 ac (162 ha) over two parcels.

South Kona Unit

The South Kona Unit consists of 51,376 ac (20,791 ha) on the west slope of Mauna Loa Volcano, Hawaii County. This unit consists of Federal lands within Hakalau Forest National Wildlife Refuge, Kona Forest Unit; State lands within South Kona Forest Reserve, Waiea Natural Area Reserve, and Kipāhoehoe Natural Area Reserve; and private lands. Federal lands comprise approximately 16 percent, State lands comprise approximately 16 percent, and private land approximately 68 percent of the South Kona Unit. Approximately 13 percent, or 6,456 ac (2,613 ha), of the South Kona Unit is within already designated critical habitat for species other than the ʻiʻiwi. The South Kona Unit

is comprised of native wet lowland forest at lower elevations and native wet and mesic montane forest at middle and upper elevations. Unlike other units, the South Kona Unit contains large areas of native wet lowland forest at elevations as low as 2,500 ft (762 m), representing the species' behavioral and ecological diversity. This unit is essential for maintaining the geographical range, as well as the diversity, of the species, therefore contributing to the redundancy and representation necessary for species' recovery. Threats identified within South Kona Unit include avian disease, habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; fire; and rapid ʻōhiʻa death. Special management considerations or protection measures to reduce or alleviate threats may include mosquito control, ungulate control, invasive plant control, fire management planning and wildfire response; and measures to reduce the spread of rapid ʻōhiʻa death (see **Special Management Considerations or Protection**, above). There are eighteen land parcels defined by landownership within South Kona Unit: Kealakekua Mountain Reserve LLC total 5,801 ac (2,348 ha) over two parcels; Kamehameha Schools total 16,209 ac (6,560 ha) over three parcels; Kealia Ranch is 1,758 ac (712 ha); Hakalau Forest National Wildlife Refuge, Kona Forest Unit is 8,234 ac (3,332 ha) over two parcels; DLNR, Waiea Natural Area Reserve is 939 ac (380 ha); DLNR, South Kona Forest Reserve, Kaʻohe Section is 1,052 ac (426 ha); DLNR, South Kona Forest Reserve, Kukuiopaʻe Section is 2,416 ac (978 ha); DLNR, South Kona Forest Reserve, ʻOlelomoana Ophihihali Section is 1,392 ac (563 ha); Yee Hop Ltd., Yee Hop Ranch is 5,317 ac (2,152 ha) over two parcels; DLNR, Kipāhoehoe Natural Area Reserve is 225 ac (91 ha); The Nature Conservancy is 5,700 ac (2,307 ha); DLNR, South Kona Forest Reserve, Kapua-Manukā Section is 1,010 ac (409 ha); and DLNR, Manukā Natural Area Reserve is 1,323 ac (535 ha).

North Kona Unit

The North Kona Unit consists of 13,599 ac (5,503 ha) on the north, west, and south slopes of Hualālai Volcano, Hawaii County. This unit consists of State lands within the Puʻu Waʻawaʻa Forest Bird Sanctuary, Puʻu Waʻawaʻa Forest Reserve, and Honuaʻula Forest Reserve, and some private lands. State lands comprise approximately 70 percent, and private land approximately 30 percent of the North Kona Unit. Approximately 22 percent, or 3,029 ac (1,226 ha), of the North Kona Unit is within already designated critical habitat for species other than the ʻiʻiwi. The North Kona Unit is comprised of mesic montane forest on the north slope and native wet and mesic montane forest on the west and south slopes of Hualālai Volcano. Collectively, the North Kona Unit is essential for maintaining the geographical range, as well as the ecological and behavioral diversity, of the species, therefore contributing to the redundancy and representation necessary for species' recovery. Threats identified within North Kona Unit include habitat degradation due to rooting by feral ungulates; intrusion of ecosystem-altering, invasive plants; fire; and rapid ʻōhiʻa death. Special management considerations or protection measures to reduce or alleviate threats may include ungulate control, invasive plant control, fire management planning and wildfire response; and measures to reduce the spread of rapid ʻōhiʻa death (see **Special Management Considerations or Protection**, above). There are four land parcels defined by landownership within North Kona Unit: DLNR, Puʻu Waʻawaʻa Forest Bird Sanctuary and Puʻu Waʻawaʻa Forest Reserve total 4,214 ac (1,705 ha); DLNR, Honuaʻula Forest Reserve is 5,243 ac (2,122 ha); and Kamehameha Schools total 4,142 ac (1,676 ha) over two parcels.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the

continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation: (1) if the amount or extent of taking specified in the incidental take statement is exceeded; (2) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not

previously considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (4) if a new species is listed or critical habitat designated that may be affected by the identified action.

In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but Congress also enacted some exceptions in 2018 to the requirement to reinitiate consultation on certain land management plans on the basis of a new species listing or new designation of critical habitat that may be affected by the subject federal action. See 2018 Consolidated Appropriations Act, Pub. L. 115-141, Div, O, 132 Stat. 1059 (2018).

Application of the "Destruction or Adverse Modification" Standard

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that we may, during a consultation under section 7(a)(2) of the Act, consider likely to destroy or adversely modify critical habitat include, but are not limited to, actions that would significantly diminish foraging and nesting opportunities for the ʻiʻiwi. While we are currently unaware of any planned activities involving Federal actions that are of sufficient magnitude to impact the essential physical or biological

features, known activities that have the potential to impact components of these features include, but are not limited to, road construction, development, crop production, cattle grazing, and forest extraction. In addition to the direct effects of tree removal on ʻiʻiwi habitat, these activities also contribute to habitat degradation through the introduction and spread of nonnative species and compounding factors including diseases. Invasive plants outcompete and displace native ʻōhiʻa and koa trees used by native forest birds for foraging and nesting. Feral ungulates degrade native forest by spreading nonnative plant seeds and grazing on and trampling native vegetation, contributing to soil erosion (Mountainspring 1986, p. 95; Camp et al. 2010, p. 198). In addition, ʻōhiʻa trees are impacted by several diseases and natural processes, including ʻōhiʻa dieback, ʻōhiʻa rust, and rapid ʻōhiʻa death (ROD), the effects of which are likely compounded by each other and with nonnative species and climate change (Mueller-Dombois 1986, pp. 238–239; Anderson 2012, pp. 1–2; Friday et al. 2015, pp. 1–3; Keith et al. 2015, p. 1).

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DoD), or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act Improvement Act of 1997 (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. No DoD lands with a completed INRMP are within the proposed critical habitat designation.

Consideration of Impacts under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking

into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (hereafter, the "2016 Policy"; 81 FR 7226, February 11, 2016), both of which were developed jointly with the National Marine Fisheries Service. We also refer to a 2008 Department of the Interior Solicitor's opinion entitled, "The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act" (M-37016). We explain each decision to potentially exclude these areas, as well as decisions not to potentially exclude, to demonstrate that the decision is reasonable. We will make a final determination in the final rule on whether or not we will exclude these areas.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise discretion to exclude the area only if such exclusion would not result in the extinction of the species. In making the determination to exclude a particular area, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor. We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we

consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both "with critical habitat" and "without critical habitat."

The "without critical habitat" scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (e.g., under the Federal listing as well as other Federal, State, and local regulations). Therefore, the baseline represents the costs of all efforts attributable to the listing of the species under the Act (i.e., conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The "with critical habitat" scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent

feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. Section 3(f) of E.O. 12866 identifies four criteria when a regulation is considered a "significant" rulemaking, and requires additional analysis, review, and approval if met. The criterion relevant here is whether the designation of critical habitat may have an economic effect of greater than $100 million in any given year (section 3(f)(1)). Therefore, our consideration of economic impacts uses a screening analysis to assess whether a designation of critical habitat for the ʻiʻiwi is likely to exceed the economically significant threshold.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the ʻiʻiwi (Industrial Economics, Incorporated 2021). We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (i.e., absent critical habitat designation) and includes any probable incremental economic impacts where land and water use may already be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or

sectors that may incur probable incremental economic impacts as a result of the designation. The presence of the listed species in occupied areas of critical habitat means that any destruction or adverse modification of those areas is also likely to jeopardize the continued existence of the species. Therefore, designating occupied areas as critical habitat typically causes little if any incremental economic impact above and beyond the impacts of listing the species. Therefore, the screening analysis focuses on areas of unoccupied critical habitat. If there are any unoccupied units in the proposed critical habitat designation, the screening analysis assesses whether any additional management or conservation efforts may incur incremental economic impacts. This screening analysis combined with the information contained in our IEM constitute what we consider to be our draft economic analysis (DEA) of the proposed critical habitat designation for the ‘i‘iwi; our DEA is summarized in the narrative below.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the ‘i‘iwi, first we identified, in the IEM dated July 29, 2022, probable incremental economic impacts associated with the following categories of activities: (1) landscape-level avian malaria control; (2) emergency response during volcanic activity; and (3) activities on forest reserve lands, including vegetation management along roadways, water lines, and utility lines; tree removal for building maintenance and removal of hazard trees; harvest of forest products; operation of recreational vehicles; and native plant collection for cultural purposes.

We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded,

permitted, or authorized by Federal agencies. In areas where the ‘i‘iwi is present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If we finalize this proposed critical habitat designation, our consultations would include an evaluation of measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we attempted to clarify the distinction between the effects that would result from the species being listed and those attributable to the critical habitat designation (i.e., difference between the jeopardy and adverse modification standards) for the ‘i‘iwi’s critical habitat. The following specific circumstances help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would likely adversely affect the essential physical or biological features of occupied critical habitat are also likely to adversely affect the species itself. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for the ‘i‘iwi includes 7 units, subdivided into 60 subunits, totaling approximately 275,647 ac (111,554 ha). Lands within the designation are under Federal (18 percent), State (60 percent), and private (22 percent) ownership. All units and subunits were occupied at the time of listing and are currently occupied. The incremental costs of designating critical habitat for the ‘i‘iwi are likely to include additional administrative effort associated with section 7 consultations, as well as project modifications. There may also be incremental costs outside of the section 7 consultation process.

The additional administrative effort associated with considering adverse

modification during the section 7 consultation process was estimated using historical consultation data. We estimate up to 11 technical assistances, 5 informal consultations, and 3 formal annually over the next 10 years. The maximum annual cost associated with these consultations is estimated not to exceed $34,000 annually (2022 dollars). Therefore, the annual administrative burden is very unlikely to exceed $100 million or be considered economically significant.

In many instances, critical habitat designation is not likely to change our recommendation for project modification during future consultations. However, in some instances, we may recommend modifications associated specifically with avoiding adverse modification to critical habitat.

- For activities with a Federal nexus that would involve entry into critical habitat susceptible to rapid ʻōhiʻa death, we anticipate recommending disinfecting gear to limit the transmission of fungal pathogens associated with rapid ʻōhiʻa death and limiting access into pristine areas. While we would not make these recommendations during a consultation that only considered jeopardy, they are part of best practices promoted by the Service and widely adopted by other agencies and conservation organizations. Therefore, the recommendations are unlikely to result in incremental costs because they are likely already part of standard protocols absent critical habitat.

- For activities with a Federal nexus involving koa thinning and ʻōhiʻa harvest, we may recommend limiting forest extraction year-round to avoid adverse modification. Absent critical habitat, we would likely only recommend limiting forest extraction during the ʻiʻiwi breeding season. Data are not available to develop a potential range of costs per year associated with this limitation. However, given that the Statewide value of forest extraction is estimated to be only $47.6 million (2022 dollars), and that baseline forest extraction in proposed critical habitat is likely to constitute a small fraction of the total forest extraction across the State, it is very unlikely that the costs attributable to critical

habitat for the ‘i‘iwi will exceed $100 million annually.

- In unpredictable cases, a Federal agency may need to act in response to volcanic activity to save human lives and would subsequently consult with the Service under emergency consultation provisions. Data are not available to forecast costs associated with modifications to or restoration activities following emergency response efforts during volcanic activity. Even if historical costs were available, the incremental costs associated with any given emergency response activity are likely to be highly context-specific.

Incremental costs may occur outside of the section 7 consultation process if the designation of critical habitat triggers additional requirements or project modifications under State or local laws, regulations, or management strategies. These types of costs typically occur if the designation increases awareness of the presence of the species or the need for protection of its habitat. Designation of critical habitat for the ‘i‘iwi has the potential to result in (1) a decrease in recreational access allowed in State-managed forest reserves, and (2) an increase in permitting requirements for development in proposed critical habitat. Although we acknowledge the potential for these types of costs, the likelihood of these potential future effects is uncertain, and data with which to estimate incremental costs is unavailable. Similarly, there may be economic impacts associated with the perceived effects of critical habitat on land values. However, the likelihood and magnitude of such effects for this purpose are uncertain.

In summary, while the specific costs of critical habitat designation for the ‘i‘iwi are subject to uncertainty, it is unlikely that, if adopted as proposed, the rulemaking would generate costs exceeding $100 million in a single year. Therefore, this proposed rule is unlikely to meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866.

We are soliciting data and comments from the public on the DEA discussed

above, as well as on all aspects of this proposed rule and our required determinations. During the development of a final designation, we will consider the information presented in the DEA and any additional information on economic impacts we receive during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Consideration of National Security Impacts

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), then national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of "critical habitat." However, the Service must still consider impacts on national security, including homeland security, on those lands or areas not covered by section 4(a)(3)(B)(i), because section 4(b)(2) requires the Service to consider those impacts whenever it designates critical habitat. Accordingly, if DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns, or we have otherwise identified national-security or homeland-security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

However, we cannot automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, we must conduct an exclusion analysis if the Federal requester provides information, including a reasonably specific justification of an

incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If we conduct an exclusion analysis because the agency provides a reasonably specific justification or because we decide to exercise the discretion to conduct an exclusion analysis, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national-security and homeland-security concerns in analyzing the benefits of exclusion.

In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for ‘i‘iwi are not owned or managed by the DoD or DHS, and, therefore, we anticipate no impact on national security or homeland security.

Consideration of Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security discussed above. To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are permitted conservation plans covering the species in the area—such as HCPs, safe harbor agreements (SHAs), or candidate

conservation agreements with assurances (CCAAs)—or whether there are non-permitted conservation agreements and partnerships that may be impaired by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation. We also consider any State, local, social, or other impacts that might occur because of the designation.

When analyzing other relevant impacts of including a particular area in a designation of critical habitat, we weigh those impacts relative to the conservation value of the particular area. To determine the conservation value of designating a particular area, we consider a number of factors, including, but not limited to, the additional regulatory benefits that the area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

In the case of ‘i‘iwi, the benefits of critical habitat include public awareness of the presence of ‘i‘iwi and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for ‘i‘iwi due to protection from destruction or adverse modification of critical habitat. Continued implementation of an ongoing management plan, which provides conservation equal to or more than the protections that result from a critical habitat designation, would reduce those benefits of including that specific area in the critical habitat designation.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will

not exclude it from the designation.

Watershed Partnerships—An important factor for our decision to consider an area for proposed exclusion is whether the landowner participates in a watershed partnership. In 2003, the State of Hawaii formally established the Hawai‘i Association of Watershed Partnerships consisting of over 60 public and private landowners throughout the State, committed to long-term protection and conservation of watershed areas. These watershed partnerships each have a conservation management plan, which is updated every several years to include measurable objectives and a budget. Financial support for the watershed partnerships include various long-term State funds, and other Federal and private sources. Of the 10 watershed partnerships in operation, 3 have lands within the proposed critical habitat designation: Kaua‘i Watershed Alliance, Mauna Kea Watershed Alliance, and Three Mountain Alliance. These watershed partnerships fund and conduct conservation efforts that support the ‘i‘iwi, including ungulate control and removal, and invasive weed management.

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitats. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an “enhancement of survival” permit under section 10(a)(1)(A) of the Act,

which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. We also provide enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis based on permitted conservation plans (such as HCPs, SHAs, and CCAAs), we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the HCP/SHA/CCAA meets all of the following three factors (see the 2016 Policy for additional details):

a. The permittee is properly implementing the HCP/SHA/CCAA and is expected to continue to do so for the term of the agreement. An HCP/SHA/CCAA is properly implemented if the permittee is and has been fully implementing the commitments and provisions in the HCP/SHA/CCAA, implementing agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the HCP/SHA/CCAA, or is very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to which the conservation measures undertaken in the HCP/SHA/CCAA would also protect the habitat features of the similar species.

c. The HCP/SHA/CCAA specifically addresses that species' habitat and meets the conservation needs of the species in the planning area.

This proposed critical habitat designation includes areas that are covered by the following permitted plan providing for the conservation of ʻiʻiwi:

Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawai'i Island, Hawaii

(Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement)—The permit holder for this SHA is Kamehameha Schools. Kamehameha Schools was established in 1887, through the will of Princess Bernice Pauahi Paki Bishop. Kamehameha Schools owns over 362,000 ac (146,496 ha) of land throughout Hawaii and part of Kamehameha Schools' mission is to protect Hawaii's environment through recognition of the significant cultural value of this land and its unique flora and fauna. In 2017, the SHA was approved by the Service and Hawai‘i Department of Land and Natural Resources for the Kamehameha School's Keauhou and Kīlauea Forest lands, which comprise 32,280 ac (13,063 ha) on the east slope of Mauna Loa Volcano, on the island of Hawai‘i. Under the SHA, koa (*Acacia koa*) tree silviculture will be conducted, including stand improvement through selective harvest and establishment of new or improvement of existing forest in formerly logged areas and degraded pasture lands. Koa forestry, as described in the SHA, increases soil-water retention capacity and provides nesting and foraging habitat for Hawaiian forest birds, including the ‘i‘iwi (Kamehameha Schools 2017, pp. 22–23). Kamehameha Schools has agreed to conduct silviculture practices in a way to ensure minimal impact to covered forest birds (‘i‘iwi, ‘akiapōlā‘au (*Hemignathus wilsoni*), Hawaii creeper (*Loxops mana*), Hawaii ‘ākepa (*Loxops coccineus*), and Hawaiian hawk or ‘io (*Buteo solitarius*)) if those species become established in koa stands, through avoidance of harvest when birds are nesting.

We have identified the following areas that we have reason to consider excluding because of the SHA:

Windward Hawai‘i Unit – (Kamehameha Schools)—The Kamehameha Schools are responsible for 13,308 ac (5,386 ha)of land included in the proposed designation for ‘i‘iwi within the Windward Hawai‘i Unit. Conservation management actions on these lands occur under the Kamehameha Schools Keauhou and Kīlauea Forest Lands SHA. This SHA is implemented effectively and specifically addresses ‘i‘iwi habitat and meets

the conservation needs of ‘i‘iwi in the planning area. In addition to this SHA, these lands in the Windward Hawai‘i Unit are also covered under two non-permitted conservation plans, the Kamehameha Schools ‘Āina Pauahi Natural Resources Management Program and the Three Mountain Alliance Management Plan. Both of these non-permitted conservation plans are summarized below in Non-Permitted Conservation Plans, Agreements, or Partnerships. We are considering 13,308 ac (5,386 ha) in the Windward Hawai‘i Unit for exclusion from the final critical habitat designation for the ‘i‘iwi because conservation actions occurring on the ground, including forest restoration, invasive predator control, ungulate fence installation and maintenance, and control of invasive introduced plants, are providing a conservation benefit to ‘i‘iwi.

We will work with Kamehameha Schools and the Three Mountain Alliance Watershed Partnership throughout the public comment period and during development of the final designation of critical habitat for ‘i‘iwi. We seek comments on whether the existing management and conservation efforts of Kamehameha Schools and the Three Mountain Alliance partners meet our criteria for exclusion from the final designation under section 4(b)(2) of the Act.

Non-Permitted Conservation Plans, Agreements, or Partnerships

We sometimes exclude specific areas from critical habitat designations based in part on the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships. A conservation plan or agreement describes actions that are designed to provide for the conservation needs of a species and its habitat and may include actions to reduce or mitigate negative effects on the species caused by activities on or adjacent to the area covered by the plan. Conservation plans or agreements can be developed by private entities with no Service involvement, or in partnership with the Service.

Shown below is a non-exhaustive list of factors that we consider in evaluating

how non-permitted plans or agreements affect the benefits of inclusion or exclusion. These are not required elements of plans or agreements. Rather, they are some of the factors we may consider, and not all of these factors apply to every plan or agreement.

(i) The degree to which the record of the plan, or information provided by proponents of an exclusion, supports a conclusion that a critical habitat designation would impair the realization of the benefits expected from the plan, agreement, or partnership.

(ii) The extent of public participation in the development of the conservation plan.

(iii) The degree to which agency review and required determinations (e.g., State regulatory requirements) have been completed, as necessary and appropriate.

(iv) Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) compliance was required.

(v) The demonstrated implementation and success of the chosen mechanism.

(vi) The degree to which the plan or agreement provides for the conservation of the essential physical or biological features for the species.

(vii) Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented.

(viii) Whether the plan or agreement contains a monitoring program and adaptive management to ensure that the conservation measures are effective and can be modified in the future in response to new information.

The proposed critical habitat designation includes areas that are covered by the following non-permitted management plans providing for the conservation of ʻiʻiwi:

Kauaʻi Watershed Alliance Management Plan, Overall Management Strategy (2012)—The Kauaʻi Watershed Alliance was formed in 2003, including major landowners within the conservation district boundary on Kauaʻi and encompassing most land with native forest on the island of Kauaʻi (Kauaʻi Watershed Alliance 2012, entire).

The Kauaʻi Watershed Alliance Management Plan is designed to protect over 25,000 ac (10,117 ha) of forest land through construction of ungulate fences; ungulate removal; fence line surveys; and control of invasive, introduced plants (Kauaʻi Watershed Alliance 2012, entire). These conservation actions are beneficial in conserving native and introduced forests used for nesting and foraging by ʻiʻiwi.

Kauaʻi Forest Bird Recovery Project—The Kauaʻi Forest Bird Recovery Project is a joint collaborative program between the State of Hawaii's Division of Forestry and Wildlife and the Pacific Studies Cooperative Unit of the University of Hawaiʻi. It is funded and supported by numerous partners including the Service, Division of Forestry and Wildlife, and several other organizations and individuals (Kauaʻi Forest Bird Recovery Project 2022, entire). The Kauaʻi Forest Bird Recovery Project is committed to monitoring Kauaʻi forest bird reproductive success, conducting invasive predator control, and promoting knowledge, appreciation, and conservation of Kauaʻi's native forest birds and the potential of different management strategies for recovering their populations. These conservation actions are beneficial in educating the public and conserving native forest that is used for nesting and foraging by ʻiʻiwi.

Kula Forest Reserve and the Papaʻanui Tract of Kahikinui Forest Reserve Management Plan—The State of Hawaii's Division of Forestry and Wildlife manages the Kula Conservation Game Management Area on the south slope of Haleakalā Volcano, east Maui, under the Kula Forest Reserve and the Papaʻanui Tract of Kahikinui Forest Reserve Management Plan (DOFAW 2017, entire). Management of feral ungulates by public hunting on the conservation game management area benefits mixed introduced and native forest and native shrublands by reducing ungulate grazing and rooting and trampling of trees, shrubs, and other vegetation. Ungulate control within the conservation game management area benefits habitat ʻiʻiwi use for nesting and foraging by improving

forest regeneration and reducing breeding sites for introduced southern house mosquitoes that carry avian malaria.

Leeward Haleakalā Watershed Restoration Partnership—Formed in 2003, the Leeward Haleakala Watershed Restoration Partnership is a coalition of 11 private and public landowners and supporting agencies that are working to protect and restore watershed areas on leeward Haleakalā Volcano, east Maui (Leeward Haleakalā Watershed Restoration Partnership 2022, entire). The partnership's land management goals for the leeward Haleakalā watershed include: (1) restore native koa forests to provide increased water quantity and quality, (2) conserve unique endemic plants and animals, (3) protect important Hawaiian cultural resources, and (4) allow diversification of Maui's rural economy. Large areas of mesic koa forest and mixed koa/ʻohiʻi a forest of leeward east Maui was degraded by cattle grazing over the last century, reducing the amount of available habitat for ʻiʻiwi. The Leeward Haleakalā Watershed Restoration Partnership's efforts to restore koa forests and conserve endemic plants and animals that comprise native ecosystems benefit ʻiʻiwi by improving regeneration of forest and shrubland habitats used by the species for nesting and foraging.

The Nature Conservancy Waikamoi Preserve, Long-Range Management Plan, Fiscal Years 2019–2024—The Nature Conservancy Waikamoi Preserve was established on east Maui in 1983 when Haleakalā Ranch granted a perpetual conservation easement on 5,140 ac (2,080 ha) of ranch lands to The Nature Conservancy, and the preserve was expanded in 2013, when The Nature Conservancy obtained a conservation easement on 3,721 ac (1,506 ha) of East Maui Irrigation Co. Ltd. (EMI) lands adjacent to the existing preserve. The management program for the Waikamoi Preserve is documented in The Nature Conservancy Waikamoi Preserve, Long-Range Management Plan, Fiscal Years 2019–2024 (The Nature Conservancy 2018, entire). This plan details management measures that protect, restore, and enhance rare plants and animals and their habitats

within the Waikamoi Preserve and in adjacent areas. Primary management goals for the Waikamoi Preserve are to: (1) Prevent degradation of native forest and shrubland by reducing feral ungulate damage; (2) improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of nonnative plants; (3) conduct small mammal control and reduce the negative impacts of small mammals where possible; (4) monitor and track the biological and physical resources in the preserve, evaluate changes in these resources over time, and encourage biological and environmental research; (5) prevent extinction of rare species in the preserve; (6) build public understanding and support for the preservation of natural areas and enlist volunteer assistance for preserve management; and (7) protect the resources from fires in and around the preserve. Ungulate control benefits habitat ‘i‘iwi use for nesting and foraging by improving forest regeneration and reducing breeding sites for introduced southern house mosquitoes that carry avian malaria. Fire suppression benefits forest and shrubland habitats ‘i‘iwi use by minimizing damage to these habitats by fire. Nonnative plant control improves recruitment of native trees, and control of small mammals, particularly rats (*Rattus* spp.), reduces potential for predation of nesting ‘i‘iwi. Collectively, these actions are effective in conserving native forest and shrubland ‘i‘iwi use for nesting and foraging.

East Maui Watershed Partnership—The East Maui Watershed Partnership, formed in 1991, is a coalition of private and public landowners and supporting agencies that are working to protect and restore watershed areas on windward Haleakalā Volcano, east Maui (East Maui Watershed Partnership 2022, entire). The partnership’s management goals for the East Maui Watershed Partnership include: (1) watershed resource monitoring; (2) feral animal control; (3) control of invasive, introduced plants; (4) development and maintenance of management infrastructure; and (5) development and implementation of public education and awareness programs. Since 1991, the East

Maui Watershed Partnership has constructed over 7 mi (11 km) of ungulate fences protecting remote watershed areas and has removed feral ungulates from fenced areas. Ungulate control benefits habitat ‘i‘iwi use for nesting and foraging by improving forest regeneration and reducing mosquito breeding sites. Nonnative plant control improves recruitment of native trees.

Maui Forest Bird Recovery Project—The Maui Forest Bird Recovery Project (MFBRP) is a joint collaborative program between the State of Hawaii’s Division of Forestry and Wildlife and the Pacific Studies Cooperative Unit of the University of Hawai‘i. MFBRP is funded and supported by numerous partners including the Service, Division of Forestry and Wildlife, and several other organizations and individuals (Maui Forest Bird Recovery Project 2022, entire). The mission of the Maui Forest Bird Recovery Project is to develop and implement techniques that recover Maui’s endangered forest birds and to restore their habitats through research, development, and application of conservation techniques. These conservation actions are beneficial in conserving native forest that is used for nesting and foraging by ‘i‘iwi.

Kamehameha Schools ‘Āina Pauahi Natural Resources Management Program—Kamehameha Schools owns over 362,000 ac (146,496 ha) of land throughout Hawaii. Part of Kamehameha Schools’ mission is to protect Hawaii’s environment through recognition of the significant cultural value of this land and its unique flora and fauna. Accordingly, Kamehameha Schools established a sustainable stewardship policy to guide the use of its lands through their ‘Āina Pauahi Natural Resources Management Program that includes the protection and conservation of natural resources, water resources, and ancestral places (Kamehameha Schools 2022, entire). Between 2000 and 2015, Kamehameha Schools increased active stewardship of native ecosystems by over 35-fold, from 3,000 ac (1,124 ha) to 136,000 ac (55,037 ha), engaged in community collaborations to leverage external resources in support of culturally appropriate land

stewardship, and developed and implemented its 2012 natural resource and cultural resource management plans representing Kamehameha Schools' responsibility to conduct prudent stewardship of the ʻāina (land). Kamehameha Schools manages some of its forested lands for income generation through sustainable koa and ʻiliahi or sandalwood (*Santalum album*) forestry and collaborates with county and other landowners in fire response planning to protect natural resources from fires. These actions promote regeneration of native forests ʻiʻiwi use for nesting and foraging and improve soil-water retention capacity and ecosystem resilience to drying climate conditions. Fire suppression benefits forest and shrubland habitats ʻiʻiwi use for nesting and foraging by minimizing damage to these habitats by wildfire.

Three Mountain Alliance Management Plan, December 31, 2007—The Three Mountain Alliance Watershed Partnership is a coalition of private and public landowners and supporting agencies that are working to protect and restore watershed areas on Hawaiʻi Island (Three Mountain Alliance 2007, entire). Lands that are managed by the Three Mountain Alliance are 1,116,300 ac (451,751 ha) on Mauna Loa, Kīlauea, and Hualālai Volcanoes or roughly 45 percent of the island of Hawaiʻi. Project funding for the Three Mountain Alliance currently comes from Three Mountain Alliance members (primarily the Service, Hawaii's Division of Forestry and Wildlife, and Kamehameha Schools) and outside grants. Other Three Mountain Alliance members provide in-kind services to accomplish priority projects (e.g., inmate labor, sharing personnel and equipment) (Three Mountain Alliance Management Plan, December 31, 2007, p. 56). Management under the Three Mountain Alliance Management Plan includes the following conservation actions: (1) strategic fencing and removal of ungulates; (2) regular monitoring for ungulates after fencing; (3) monitoring of habitat recovery; (4) surveys for rare taxa prior to new fence installations; (5) invasive, nonnative plant control; (6) reestablishment of native plant species; and (7) activities to reduce the threat

of wildfire. Ungulate control reduces damage to ʻōhiʻa forests, maintains the health of tall stature trees used for ʻiʻiwi nesting, and prevents ungulates from creating breeding sites for introduced southern house mosquitoes that carry avian malaria. Control of nonnative, invasive plants and out-planting of native plants improves recruitment of native trees. Fire suppression activities reduce the damage from wildfires and protect forest and shrubland habitat ʻiʻiwi use for nesting and foraging.

Department of Hawaiian Homelands ʻĀina Mauna Legacy Program—The Department of Hawaiian Homelands is governed by the Hawaiian Homes Commission Act of 1920, enacted by the U.S. Congress to protect and improve the lives of native Hawaiians. The act created an Hawaiian Homes Commission to administer certain public lands, called Hawaiian homelands, for homesteads. The primary responsibilities of Department of Hawaiian Homelands are to serve its beneficiaries and to manage its extensive land trust, which consists of over 200,000 ac (80,937 ha) on the islands of Hawaiʻi, Maui, Molokaʻi, Lānaʻi, Oʻahu, and Kauaʻi. The goal of the Department of Hawaiian Homelands' ʻĀina Mauna Legacy Program is to restore and protect approximately 56,000 ac (22,662 ha) of native Hawaiian forest on Mauna Kea Volcano on the island of Hawaiʻi that is ecologically, culturally, and economically self-sustaining for the Hawaiian Homelands Trust, its beneficiaries, and the community (Department of Hawaiian Homelands 2022, pp. 1–2). The Department of Hawaiian Homelands ʻĀina Mauna Legacy Program describes activities to be conducted on Department of Hawaiian Homelands lands over the next 100 years, including native forest restoration and sustainable koa forestry; invasive plant control and remnant invasive species eradication; nonnative wildlife control and management (i.e., feral ungulate control); road system, fencing, and water systems infrastructure development and maintenance; and research and community outreach. Some forest areas in lands managed under the ʻĀina Mauna Legacy Program are degraded by history of cattle grazing. Koa tree silviculture is in

initial stages and will be conducted (at least during the next 100 years) on lands under this management designation, including stand improvement through selective harvest and establishment of new or improved forest in formerly logged areas and degraded pasture lands. Koa silviculture benefits habitat ʻiʻiwi use for nesting and foraging by establishing new or improved forest, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions. Ungulate control reduces damage to ʻōhiʻa forests, maintains the health of tall stature trees used for ʻiʻiwi nesting, and prevents ungulates from creating breeding sites for introduced southern house mosquitoes that carry avian malaria. Control of nonnative, invasive plants and out-planting of native plants improves recruitment of native trees.

Mauna Kea Watershed Alliance—The Mauna Kea Watershed Alliance Watershed Partnership is a coalition of private and public landowners and supporting agencies working to protect and restore watershed areas on Mauna Kea Volcano, Hawaiʻi (Mauna Kea Watershed Alliance 2022, entire). Lands that are managed by the Mauna Kea Watershed Alliance include over 500,000 ac (202,343 ha) on Mauna Kea Volcano on the island of Hawaiʻi. The Mauna Kea Watershed Alliance shared vision is to protect and enhance watershed ecosystems, biodiversity, and natural resources through responsible management while promoting economic sustainability and providing recreational, subsistence, educational, and research opportunities. Staff of the Mauna Kea Watershed Alliance work cooperatively with members of the alliance to achieve this shared vision. Accordingly, fencing and ungulate control, control of introduced plants that are invasive, and reforestation efforts are conducted on lands within the Mauna Kea Watershed Alliance. Ungulate control benefits habitat ʻiʻiwi use for nesting and foraging by improved forest regeneration and reduction of breeding sites for introduced southern house mosquitoes that carry avian malaria. Nonnative plant control improves recruitment of native trees, and reforestation provides ʻiʻiwi nesting and foraging habitat and

increases soil-water retention capacity improving ecosystem resilience to drying climate conditions.

Kūkaʻiau Ranch Conservation Easement with The Nature Conservancy and Hawaiʻi Island Land Trust—Kūkaʻiau Ranch is a 10,200-ac (4,128-ha) ranch on the east slope of Mauna Kea. In 2009, ranch owners donated a conservation easement on 4,500 ac (1,821 ha) of the ranch's property to The Nature Conservancy and Hawaiʻi Island Land Trust (College of Tropical Agriculture and Human Resources 2009, entire). The easement covers the highest elevation areas of the ranch that comprise mostly intact native forest. The land under easement has two dominant tree species, māmane and koa. Since the conservation easement was signed in 2009, Kūkaʻiau Ranch has worked with The Nature Conservancy, Hawaiʻi Island Land Trust, and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) to build ungulate fencing, remove pigs and goats, and restore native plant species. In addition, Kūkaʻiau Ranch collaborates with the county and other landowners in fire response planning to protect its adjacent landowners' natural resources from fires. Ungulate control benefits habitat ʻiʻiwi use for nesting and foraging by improved forest regeneration and reduction of breeding sites for introduced southern house mosquitoes that carry avian malaria. Control of invasive, introduced plants improves recruitment of native trees. Fire suppression benefits forest and shrubland habitats ʻiʻiwi use for nesting and foraging by minimizing damage to these habitats by wildfire.

Parker Ranch Sustainable Forestry Initiative—Parker Ranch was founded in 1847, and currently encompasses over 100,000 ac (40,469 ha) of land in the Hamakua, North Kohala, and South Kohala Districts on Mauna Kea and the Kohala Mountains on the island of Hawaiʻi. Parker Ranch recognizes forest health as a key indicator of overall ecosystem health and, as result, announced in 2021 that it is seeking to collaborate with public and private partners to develop sustainable forestry programs on its lands (Parker

Ranch 2021, entire). For its Waipunalei lands on the east slope of Mauna Kea, Parker Ranch is developing a sustainable koa forestry program and is seeking to rehabilitate forest areas damaged by history of cattle grazing (Parker Ranch 2022, entire). Koa forestry benefits forest habitat ʻiʻiwi use for nesting and foraging by establishing new or improved forest in formerly logged areas and degraded pasture lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions.

The Nature Conservancy Kaʻū Preserve Hawaiʻi Island, Long-Range Management Plan, Fiscal Years 2013–2018—The Nature Conservancy Kaʻū Preserve was established in 2002, in the Kaʻū District of the island of Hawaiʻi. Kaʻū Preserve is comprised of 3,511 ac (1,421 ha) in four management units within Kaʻū Forest Preserve on the southern slope of Mauna Loa Volcano. The management program for Kaʻū Preserve is documented in the The Nature Conservancy Kaʻū Preserve, Long-Range Management Plan, Fiscal Years 2013–2018 (The Nature Conservancy 2012, entire). Primary management goals for the preserve are to: (1) prevent degradation of native forest by reducing feral ungulate damage; (2) improve or maintain the integrity of native ecosystems by reducing the effects of nonnative plants; (3) conduct small mammal, including rodent, control and reduce the negative impacts of small mammals; (4) monitor and track the biological and physical resources in the preserve, evaluate changes in these resources over time, and encourage biological and environmental research; (5) prevent extinction of rare species in the preserve; and (6) build public understanding and support for the preservation of natural areas, and enlist volunteer assistance for preserve management. Ungulate control reduces damage to ʻōhiʻa forests, maintains the health of tall stature trees used for ʻiʻiwi nesting, and prevents ungulates from creating breeding sites for introduced southern house mosquitoes that carry avian malaria. Fire suppression reduces the damage from wildfires and provides protection for forest and shrubland

habitat that ‘i‘iwi use for nesting and foraging. Invasive plant control improves recruitment of native trees, and small mammal control, particularly for rats (*Rattus* spp.), reduces the potential for predation on nesting ‘i‘iwi.

Kealakekua Mountain Reserve Forest Legacy Program Conservation Easement with the State of Hawaii’s Department of Land and Natural Resources—Once a former ranch, the Kealakekua Mountain Reserve, LLC, established the Kealakekua Mountain Reserve Forest Legacy Program Conservation Easement (conservation easement) with the State of Hawaii’s Department of Land and Natural Resources in 2011 (DLNR 2022, p. 4). The conservation easement protects mesic and dryland native forest and native species on Kealakekua Mountain Reserve lands on leeward Mauna Loa Volcano on the island of Hawai‘i and covers 9,000 ac (3,642 ha) of Kealakekua Mountain Reserve lands under the State’s Forest Legacy Program, a Federal grant program that aids States in identification and conservation of important private forest lands that are threatened by development or fragmentation (DLNR 2022, entire). The Kealakekua Mountain Reserve management plan under the conservation easement requires harvesting limitations to ensure regeneration of native forest on its properties (dōTerra 2018, entire). In order to protect the growth and regeneration of ‘iliahi or sandalwood trees, the management plan allows collection only of dead or severely damaged trees; no living sandalwood trees will be harvested at this time, which will allow existing healthy trees to grow to full maturity before they are harvested under sustainable tree management practices. The Kealakekua Mountain Reserve operates a large nursery, and various native Hawaiian trees from the nursery, including ‘ōhi‘a, as well as trees and shrubs that serve as hosts for sandalwood including koa, a’ali’i (*Dodonaea viscosa*), and hoawa (*Pittosporum* spp.), are being out-planted at the Kealakekua Mountain Reserve. These management actions conserve and enhance forest habitat ‘i‘iwi use for nesting and foraging, increase soil-water retention capacity, and improve ecosystem resilience to drying climate conditions.

Hāloa ʻĀina Forest Restoration Agreement—Hāloa ʻĀina is a Native Hawaiian family-owned business dedicated to restoring native dryland forest. In 2019, Kamehameha Schools entered into an agreement with Hāloa ʻĀina aimed at developing a financial and ecological model to restore remnant ʻiliahi or sandalwood and māmane (*Sophora chrysophylla*) forest on Kamehameha Schools lands in South Kona on the leeward side of Mauna Loa on the island of Hawaiʻi (Big Island Video News 2019, entire). Under a 5-year license, the project will improve the native ecosystems consisting of ʻiliahi and māmane on formerly degraded agricultural lands. Revenues generated from the harvest of dead and senescent sandalwood trees are directly reinvested in the property with a focus on conservation management. Hāloa ʻĀina markets products made from sandalwood material (oil, dust, etc.) and allocate a percentage of gross sales to Kamehameha Schools. Hāloa ʻĀina is actively propagating ʻiliahi, māmane, and koa trees in its greenhouses for out-planting on Kamehameha Schools lands in South Kona. These management actions conserve and enhance forest habitat ʻiʻiwi use for nesting and foraging, increase soil-water retention capacity, and improve ecosystem resilience to drying climate conditions.

The Nature Conservancy Forest Stewardship Management Plan for the Kona Hema Preserve—The Nature Conservancy Kona Hema Preserve was established in 1999 in the South Kona District of the island of Hawaiʻi and is comprised of 8,076 ac (3,268 ha) in four management units. The management program for Kona Hema Preserve is documented in The Nature Conservancy's Forest Stewardship Management Plan for the Kona Hema Preserve, which details management measures to protect, restore, and enhance rare plants and animals and their habitats within the preserve and in adjacent areas (The Nature Conservancy 2017, entire). Primary management goals for the Kona Hema Preserve are to: (1) prevent degradation of native forest and shrubland by reducing feral ungulate damage; (2) improve or maintain the integrity of native ecosystems in

selected areas of the preserve by reducing the effects of nonnative plants; (3) conduct small mammal control and reduce the negative impacts of small mammals where possible; (4) monitor and track the biological and physical resources in the preserve, evaluate changes in these resources over time, and encourage biological and environmental research; (5) prevent extinction of rare species in the preserve; (6) build public understanding and support for the preservation of natural areas, and enlist volunteer assistance for preserve management; and (7) protect the resources from fires in and around the preserve. Ungulate control reduces damage to ʻōhiʻa forests, maintains the health of tall stature trees used for ʻiʻiwi nesting, and prevents ungulates from creating breeding sites for introduced southern house mosquitoes that carry avian malaria. Fire suppression reduces the damage from wildfires and provides protection for forest and shrubland habitat that ʻiʻiwi use for nesting and foraging. Invasive plant control improves recruitment of native trees, and small mammal control, particularly rat (*Rattus* spp.) control, reduces the potential for predation on nesting ʻiʻiwi.

Paniolo Tonewoods, LLC, Forest Restoration Agreement with Kamehameha Schools—In 2019, Kamehameha Schools entered into an agreement with Paniolo Tonewoods, LLC, to manage 1,300 ac (526 ha) of Kamehameha Schools forest lands upslope of Hōnaunau Forest Reserve on the leeward slopes of Hualālai Volcano in North Kona on the island of Hawaiʻi (Big Island Video News 2019, entire). The pilot project, based on the exchange of goods for services known as "stewardship contracting," is designed to demonstrate the concept of conservation offsetting costs of stewardship. Under the license terms, Paniolo Tonewoods' partner, Forest Solutions, Inc., is providing restoration services including koa tree propagation and koa out-planting in exchange for a fixed number of selected koa trees to be harvested under Kamehameha Schools-determined standards. The value of the harvested timber removed by Paniolo Tonewoods as part of the restoration/stewardship project will offset the costs of the conservation

services and the final product of the processed koa wood is high-quality guitars. These management actions conserve and enhance forest and shrubland habitat ‘i‘iwi use for nesting and foraging, increase soil-water retention capacity, and improve ecosystem resilience to drying climate conditions.

After considering the factors described above, we have identified the following areas that we have reason to consider excluding because of non-permitted plans, agreements, or partnerships. Our consideration of an area for exclusion is based on all non-permitted plans, agreements, and/or partnerships for the area and the overall benefit these planning documents and associated conservation actions provide for the protection, maintenance, enhancement, and/or restoration of habitat i‘iwi use for nesting and foraging. In all cases, we are considering excluding areas where private landowners are actively participating in the restoration or management of habitats essential to conservation of iiwi, allowing surveys or monitoring of iiwi and its habitat, or taking steps to protect and increase numbers of iiwi that occur on their properties.

Specific benefits of conservation management and rationale for considering exclusion are described below. We welcome any information regarding planning documents or other information we may have overlooked pertaining to the areas we are considering for exclusion and areas we are not considering for exclusion. We will work with landowners throughout the public comment period and during development of the final designation of critical habitat for ‘i‘iwi and seek comments on whether the existing management and conservation efforts of landowners meet our criteria for exclusion from the final designation under section 4(b)(2) of the Act.

Alaka‘i Plateau Unit – Alexander & Baldwin, Inc.—The Nature Conservancy manages two parcels of land (142 ac (58 ha) and 61 ac (25 ha)) owned by Alexander & Baldwin, Inc., included in the proposed critical habitat designation for ‘i‘iwi, Alaka‘i

Plateau Unit. Conservation management activities on these lands include those associated with the Kaua‘i Watershed Alliance Management Plan Update, Overall Management Strategy (2012) and Kaua‘i Forest Bird Recovery Project.

The Nature Conservancy Wainiha Preserve was established by a conservation easement with Alexander & Baldwin, Inc., and is comprised of 7,050 ac (2,853 ha) in Wainiha Valley and is part of the Alaka‘i Plateau. The management program of the Wainiha Preserve under the above described management plans includes preventing degradation of watershed and forest ecosystems by reducing feral ungulate damage, controlling invasive plants, monitoring and tracking the biological and physical resources in the preserve, preventing extinction of rare species in the preserve, and building public understanding and support for the preservation of natural areas. In addition, The Nature Conservancy is a member of the Kaua‘i Watershed Alliance, whose goals include to conserve forest watershed and unique endemic plants and animals by construction of ungulate fences, ungulate removal, fence line surveys, and weed control. The Nature Conservancy also collaborates with the Kaua‘i Forest Bird Recovery Project, which conducts research to understand the ecology of native forest birds, the threats they face, and the application of management strategies for recovering their populations. The conservation actions occurring within Alaka‘i Plateau Unit under management by The Nature Conservancy, including Wainiha Preserve, the Kaua‘i Watershed Alliance, and the Kaua‘i Forest Bird Recovery Project, conserve and protect habitat important for ‘i‘iwi nesting and foraging. These conservation actions reduce breeding sites of introduced southern house mosquitoes that carry avian malaria, encourage native forest regeneration, and reduce small mammal predator populations through control activities. Based on The Nature Conservancy’s management under the Kaua‘i Watershed Alliance Management Plan Update, Overall Management Strategy (2012), and collaboration with Kaua‘i Watershed Alliance and the Kaua‘i Forest Bird Recovery Project, we are considering

excluding Alexander & Baldwin, Inc., lands from the final critical habitat designation for the ʻiʻiwi because forest habitat used by ʻiʻiwi within lands owned by Alexander & Baldwin, Inc. is protected from degradation by ungulate fencing and ungulate removal, and control of nonnative plants.

Kula Unit – Kaʻonoʻulu Ranch—The Kaʻonoʻulu Ranch manages 830 ac (336 ha) of land included in the proposed critical habitat designation for the ʻiʻiwi within the Kula Unit. Conservation management activities on these lands include those associated with the Kula Forest Reserve and the Papaʻanui Tract of Kahikinui Forest Reserve Management Plan and Leeward Haleakalā Watershed Restoration Partnership.

Kaʻonoʻulu Ranch is a member of the Leeward Haleakalā Watershed Restoration Partnership, a watershed partnership that manages lands on leeward east Maui to conserve endemic plants and animals and conducts watershed protection (including native forest reforestation and wildfire response planning and fire suppression) to improve forest and shrubland habitats that ʻiʻiwi use for nesting and foraging. Kaʻonoʻulu Ranch has been and continues to be an active partner with the State of Hawaii's Department of Land and Natural Resources to reduce the numbers of feral ungulates and promote native plant regeneration across Leeward Haleakalā. The conservation actions of Kaʻonoʻulu Ranch benefit habitat ʻiʻiwi use for nesting and foraging by promoting forest regeneration and reducing breeding sites for introduced southern house mosquitoes that carry avian malaria.

Based on Kaʻonoʻulu Ranch's management under the Kula Forest Reserve and the Papaʻanui Tract of Kahikinui Forest Reserve Management Plan and participation in the Leeward Haleakalā Watershed Restoration Partnership, we are considering excluding Kaʻonoʻulu Ranch lands from the final critical habitat designation for the ʻiʻiwi.

East Haleakalā Unit – Haleakalā Ranch—The Nature Conservancy manages 1,113 ac (451 ha) of land owned by Haleakalā Ranch included in the proposed critical

habitat designation for ‘i‘iwi within the East Haleakalā Unit. Conservation management activities on these lands include those associated with: The Nature Conservancy’s Waikamoi Preserve Long-Range Management Plan, Fiscal Years 2019–2024; the Leeward Haleakalā Watershed Restoration Partnership; and Maui Forest Bird Recovery Project.

Conservation actions being conducted in Waikamoi Preserve include control of feral ungulate populations; control of nonnative mammals, including rats (*Rattus* spp.), cats (*Felis catus*), mongoose (*Herpestes auropunctatus*), and dogs (*Canis familiaris*), that have been known to prey on ‘i‘iwi; control of habitat-modifying, nonnative plants in intact native communities and prevention of the introduction of additional nonnative plants; and natural resource monitoring and research to address the need to track the biological and physical resources of the preserve and evaluate changes in these resources to guide management programs. In addition, as fire is a threat in shrubland areas, management includes wildfire preparedness, including annually updating wildfire management plans and ensuring that staff is provided with fire suppression training, roads are maintained for fire break access, and equipment is supplied as needed to allow immediate response to fire threats. In addition, Haleakalā Ranch and The Nature Conservancy Waikamoi Preserve are members of the Leeward Haleakalā Watershed Restoration Partnership that conducts conservation management to conserve unique endemic plants and animals, monitor watershed resources, and control feral animals and invasive plants. The Nature Conservancy also collaborates with the Maui Forest Bird Recovery Project that conducts research to understand the ecology of native forest birds, the threats they face, and the application of management strategies for recovering their populations. The conservation actions of The Nature Conservancy Waikamoi Preserve benefit habitat ‘i‘iwi use for nesting and foraging by improving forest regeneration, reducing breeding sites of introduced southern house mosquitoes that carry avian malaria,

controlling feral ungulates, conducting fire suppression activities that benefit forest and shrubland ‘i‘iwi habitat, controlling nonnative plants to improve recruitment of native trees, controlling small mammals to reduce predation on nesting ‘i‘iwi, and conducting research to understand threats to native forest birds and ways to address those threats.

Based on The Nature Conservancy’s management of the Waikamoi Preserve under the Waikamoi Preserve Long-Range Management Plan, Fiscal Years 2019–2024; collaboration with the Maui Forest Bird Recovery Project and Haleakalā Ranch; and The Nature Conservancy’s participation in the Leeward Haleakalā Watershed Restoration Partnership, we are considering excluding lands owed by Haleakalā Ranch from the final critical habitat designation for the ‘i‘iwi.

East Haleakalā Unit – East Maui Irrigation, Inc.—The Nature Conservancy manages 2,327 ac (942 ha) of land owned by East Maui Irrigation, Inc., in the proposed critical habitat designation for ‘i‘iwi within the East Haleakalā Unit. Conservation management activities on these lands include those associated with The Nature Conservancy’s Waikamoi Preserve Long-Range Management Plan, Fiscal Years 2019–2024; the East Maui Watershed Partnership; and Maui Forest Bird Recovery Project.

Conservation actions being conducted in Waikamoi Preserve include bringing feral ungulate populations to zero within the preserve as rapidly as possible and preventing domestic livestock from entering the preserve; controlling or preventing entry of nonnative mammals, such as rats (*Rattus* spp.), cats (*Felis catus*), mongoose (*Herpestes auropunctatus*), and dogs (*Canis familiaris*), on the preserve as these mammals have negative impacts on reproduction and persistence of native plants and animals; controlling habitat-modifying, nonnative plants in intact native communities and preventing the introduction of additional nonnative plants; and conducting natural resource monitoring and research to address the need to track the biological and physical resources of the preserve and evaluate changes in these resources to guide management

programs. In addition, as fire is a threat in shrubland areas, management includes wildfire preparedness, including annually updating wildfire management plans and ensuring that staff is provided with fire suppression training, roads are maintained for fire break access, and equipment is supplied as needed to allow immediate response to fire threats. In addition, Haleakalā Ranch and The Nature Conservancy Waikamoi Preserve are members of the Leeward Haleakalā Watershed Restoration Partnership that conducts conservation management to conserve unique endemic plants and animals, watershed resource monitoring, and feral animal and invasive plant control. The Nature Conservancy also collaborates with the Maui Forest Bird Recovery Project that conducts research to understand the ecology of native forest birds, the threats they face, and the application of management strategies for recovering their populations. The conservation actions of The Nature Conservancy Waikamoi Preserve benefit habitat ‘i‘iwi use for nesting and foraging by improving forest regeneration, reducing breeding sites of introduced southern house mosquitoes that carry avian malaria, controlling feral ungulates, conducting fire suppression activities to benefit forest and shrubland ‘i‘iwi habitat, conducting weed control to improve recruitment of native trees, conducting small mammal control to reduce predation on nesting ‘i‘iwi, and conducting research to understand threats to native forest birds and ways to address those threats.

Based on The Nature Conservancy’s management of the Waikamoi Preserve under the Waikamoi Preserve, Long-Range Management Plan, Fiscal Years 2019–2024; collaboration with the Maui Forest Bird Recovery Project; and participation with East Maui Irrigation, Inc., in the East Maui Watershed Partnership, we are considering excluding lands owned by East Maui Irrigation, Inc. from the final critical habitat designation for the ‘i‘iwi.

Windward Hawai‘i Unit – Department of Hawaiian Homelands—The Department of Hawaiian Homeland manages two parcels (1,631 ac (660 ha) and 2,404

ac (973 ha)) of land included in the proposed designation for ‘i‘iwi the Windward Hawai‘i Unit. Conservation management activities on these lands include those under Department of Hawaiian Homelands’ ‘Āina Mauna Legacy Program, and Mauna Kea Watershed Alliance.

The Department of Hawaiian Homelands’ ‘Āina Mauna Legacy Program is a conservation initiative to restore and protect approximately 56,000 ac (22,662 ha) of native forest on Mauna Kea that is ecologically, culturally, and economically self-sustaining for the Hawaiian Homelands Trust, its beneficiaries, and the community (Department of Hawaiian Homelands 2022, pp. 1–2). Program actions and planning include native forest restoration and sustainable koa forestry, invasive plant control, and feral ungulate control. Department of Hawaiian Homelands is also a member of the Mauna Kea Watershed Alliance, which conducts conservation actions to protect and enhance watershed ecosystems, including fencing and ungulate removal; nonnative, invasive plants control; and native forest restoration. In addition, the Mauna Kea Watershed Alliance is partnering with the NRCS on forest recovery and abatement of threats to native forest (Natural Resources Conservation Service 2022, entire). The conservation actions of Department of Hawaiian Homelands provide benefits to habitat ‘i‘iwi use for nesting and foraging by promoting forest regeneration and reducing breeding sites of introduced southern house mosquitoes that carry avian malaria, controlling feral ungulates, conducting weed control to improve recruitment of native trees, and establishing new or improving existing koa forests that provide habitat for ‘i‘iwi nesting and foraging.

Based on Department of Hawaiian Homelands’s management under Department of Hawaiian Homelands’ ‘Āina Mauna Legacy Program, and participation in the Mauna Kea Watershed Alliance, we are considering excluding these areas from the final critical

habitat designation for the ‘i‘iwi. These areas are held in trust for Hawaiian beneficiaries for the protection of native forest surrounding Mauna Kea.

Windward Hawai‘i Unit – Kūka‘iau Ranch—The Kūka‘iau Ranch manages 87 ac (35 ha) of land included in the proposed designation for ‘i‘iwi within the Windward Hawai‘i Unit. Conservation management activities on these lands include those associated with the Kūka‘iau Ranch conservation easement with The Nature Conservancy and Hawai‘i Island Land Trust, and the Mauna Kea Watershed Alliance.

The Kūka‘iau Ranch conservation easement with The Nature Conservancy and Hawai‘i Island Land Trust provides for conservation work including fencing, removal of pigs and goats, and restoration of native plant species. In addition, Kūka‘iau Ranch is a member of the Mauna Kea Watershed Alliance, which conducts conservation activities to protect and enhance watershed ecosystems, including fencing and ungulate removal, nonnative plant control, and native forest restoration. In addition, Kūka‘iau Ranch collaborates with county and other landowners in fire response planning to protect its and adjacent landowners’ natural resources from fires. Since 2009, when the conservation easement with The Nature Conservancy and Hawai‘i Island Land Trust was signed (College of Tropical Agriculture and Human Resources 2009, entire), Kūka‘iau Ranch has built ungulate fencing, removed pigs and goats, and restored native plant species on its conservation lands. The conservation actions of Kūka‘iau Ranch benefit habitat ‘i‘iwi use for nesting and foraging by promoting forest regeneration and reduction of breeding sites for introduced southern house mosquitoes that carry avian malaria, nonnative plant control that improves recruitment of native trees, and fire suppression that benefits forest and shrubland habitat ‘i‘iwi use for nesting and foraging by minimizing damage to these habitats from wildfire.

Based on Kūka‘iau Ranch’s management under the Kūka‘iau Ranch conservation easement with The Nature Conservancy and Hawai‘i Island Land Trust, participation in

the Mauna Kea Watershed Alliance, and collaboration with the State of Hawaii's Department of Forestry and Wildlife and adjacent landowners in wildfire response, we are considering excluding this area from the final critical habitat designation for the ʻiʻiwi.

Windward Hawaiʻi Unit – Parker Ranch Waipunalei, LLC—Parker Ranch manages 1,449 ac (586 ha) of land included in the proposed designation for ʻiʻiwi within the Windward Hawaiʻi Unit. Conservation management activities on these lands include those associated with Parker Ranch's sustainable koa forestry initiative and the Mauna Kea Watershed Alliance.

Parker Ranch manages over 100,000 ac (40,469 ha) of land in the Hāmākua, North Kohala, and South Kohala Districts on Mauna Kea and the Kohala Mountains on the island of Hawaiʻi, and in 2021, the ranch announced it is seeking to collaborate with public and private partners to develop sustainable forestry programs on some of these lands (Parker Ranch 2021, entire). For its Waipunalei lands, Parker Ranch is developing a sustainable koa forestry program to rehabilitate forest areas damaged by cattle grazing (Parker Ranch 2022, entire). Parker Ranch is a member of the Mauna Kea Watershed Alliance, whose shared vision is to protect and enhance watershed ecosystems, biodiversity, and natural resources through responsible management while promoting economic sustainability and providing recreational, subsistence, educational, and research opportunities. The conservation measures of Parker Ranch through its sustainable koa forestry initiative provide benefits to habitat ʻiʻiwi use for nesting and foraging by promoting koa forest regeneration, increasing soil-water retention capacity and improving ecosystem resilience to drying climate conditions, and controlling nonnative plants to improve recruitment of native trees.

Based on Parker Ranch's management under Parker Ranch's sustainable koa forestry initiative and participation in the Mauna Kea Watershed Alliance, we are considering excluding this area from the final critical habitat designation for the ʻiʻiwi.

Kaʻū Unit – The Nature Conservancy Kaʻū Preserve—The Nature Conservancy owns two parcels (274 ac (111 ha) and 125 ac (51 ha)) of land included in the proposed designation for ʻiʻiwi within the Kaʻū Unit. Conservation management activities on these lands include those associated with the Kaʻū Preserve Hawaiʻi Island, Long-Range Management Plan, Fiscal Years 2013–2018; and the Three Mountain Alliance Watershed Management Plan, December 31, 2007.

Conservation actions being conducted in the Kaʻū Preserve include preventing degradation of native forest by reducing feral ungulate damage, improving or maintaining the integrity of native ecosystems by reducing the effects of nonnative plants, conducting small mammal (including rodent) control and reducing the negative impacts of small mammals where possible, monitoring and tracking the biological and physical resources in the preserve and evaluating changes in these resources over time, encouraging biological and environmental research, preventing extinction of rare species in the preserve, building public understanding and support for the preservation of natural areas, and enlisting volunteer assistance for preserve management. The Nature Conservancy is also a member of the Three Mountain Alliance, whose conservation actions include conserving unique endemic plants and animals; conducting watershed resource monitoring; controlling feral ungulates and invasive, nonnative plants; reestablishing native plant species; and conducting activities to reduce the threat of wildfire. Since its founding, The Nature Conservancy Kaʻū Preserve has built ungulate fencing around the Kaiholena Unit, which reduced the number of pigs to zero in that unit, and is conducting nonnative plant control. The conservation actions of The Nature Conservancy Kaʻū Preserve provide benefits to habitat ʻiʻiwi use for nesting and foraging by improving

forest regeneration and reducing breeding sites of introduced southern house mosquitoes that carry avian malaria, controlling feral ungulates, conducting nonnative plant control to improve recruitment of native trees, and controlling small mammals to reduce predation on nesting ‘i‘iwi. Wildfire management and response activities minimize damage to forest and shrubland habitats ‘i‘iwi use for nesting and foraging.

Based on The Nature Conservancy’s management of Ka‘ū Preserve under the Ka‘ū Preserve Hawai‘i Island, Long-Range Management Plan, Fiscal Years 2013–2018, and participation in the Three Mountain Alliance Management Plan, December 31, 2007, we are considering excluding The Nature Conservancy’s Ka‘ū Preserve lands from the final critical habitat designation for the ‘i‘iwi.

South Kona Unit – Kealakekua Mountain Reserve, LLC—The Kealakekua Mountain Reserve, LLC, manages two parcels (94 ac (38 ha) and 5,707 ac (2,310 ha)) of land included in the proposed designation for ‘i‘iwi within the South Kona Unit. Conservation management activities on these lands include those associated with the Kealakekua Mountain Reserve Forest Legacy Program conservation easement with the State of Hawaii’s Department of Land and Natural Resources (Kealakekua Mountain Reserve Forest Legacy Program conservation easement).

Once a former ranch, Kealakekua Mountain Reserve completed the Kealakekua Mountain Reserve Forest Legacy Program conservation easement with the State of Hawaii in 2011, to protect mesic and dryland native forest on Kealakekua Mountain Reserve lands. The Kealakekua Mountain Reserve management plan under the conservation easement outlines harvesting limitations that must be followed to insure regeneration of mesic and dryland native forest (dōTerra 2018, entire). In order to protect the immediate growth and regeneration of ‘iliahi or sandalwood trees, the management plan specifies only dead or severely damaged trees will be collected and that no living sandalwood trees should be harvested, which will allow existing healthy trees to grow to

full maturity before they are harvested under sustainable tree management practices. The Kealakekua Mountain Reserve operates a large nursery, and various native Hawaiian trees and shrub species from the nursery are being out-planted at the Kealakekua Mountain Reserve. In addition, Kealakekua Mountain Reserve has availed itself of funding and technical assistance from the NRCS for projects on Kealakekua Mountain Reserve lands to conserve ground and surface water, increase soil health, and reduce soil erosion and sedimentation. The conservation actions of Kealakekua Mountain Reserve benefit habitat ‘i‘iwi use for nesting and foraging by improved forest regeneration, water and soil conservation, increased soil-water retention capacity, and improved ecosystem resilience to drying climate conditions.

Based on Kealakekua Mountain Reserve’s management of its lands under the Kealakekua Mountain Reserve Forest Legacy Program conservation easement and NRCS projects, we are considering excluding Kealakekua Mountain Reserve from the final critical habitat designation for the ‘i‘iwi.

South Kona Unit – Kamehameha Schools—The Kamehameha Schools owns three parcels (2,744 ac (1,111 ha); 11,080 ac (4,484 ha); and 2,385 ac (965 ha)) of land included in the proposed designation for ‘i‘iwi within the South Kona Unit. Conservation management activities on these lands include those associated with the Kamehameha Schools ‘Āina Pauahi Natural Resources Management Program, Hāloa ‘Āina Forest Restoration Agreement, and the Three Mountain Alliance Watershed Management Plan, December 31, 2007.

Between 2000 and 2015, Kamehameha Schools increased its active stewardship of native ecosystems under its ‘Āina Pauahi Natural Resources Management Program from 3,000 ac (1,124 ha) to 136,000 ac (55,037 ha), 35 times the number of acres under Kamehameha Schools’ care in 2000, including lands within the South Kona Unit in this proposed critical habitat designation. In 2019, Kamehameha Schools entered into an

agreement with Hāloa ʻĀina, a Native Hawaiian family-owned business dedicated to restoring native mesic and dryland forest (Big Island Video News 2019, entire). Under a 5-year license, the project will improve the native ecosystems consisting of remnant ʻiliahi and māmane forest on formerly degraded Kamehameha Schools agricultural lands in South Kona. Revenues generated from the harvest of dead and senescent sandalwood trees are directly reinvested in the subject property with the focus of conservation management. Hāloa ʻĀina is actively propagating ʻiliahi, māmane, and koa trees in its greenhouses for planting on Kamehameha Schools lands. Kamehameha Schools is also a member of the Three Mountain Alliance, whose conservation actions include conserving unique endemic plants and animals; conducting watershed resource monitoring; controlling feral ungulates and invasive, nonnative plants; reestablishing native plant species; and conducting activities to reduce the threat of wildfire. The conservation actions of Kamehameha Schools benefit habitat ʻiʻiwi use for nesting and foraging by promoting forest regeneration and reduction of breeding sites for introduced southern house mosquitoes that carry avian malaria through control of feral ungulates; nonnative plant control that improves recruitment of native trees; fire suppression that benefits forest and shrubland ʻiʻiwi use for nesting and foraging by minimizing damage to these habitats by wildfire; and ʻiliahi and māmane forest restoration that conserves and enhances forest and shrubland habitat ʻiʻiwi use for nesting and foraging, increases soil-water retention capacity, and improves ecosystem resilience to drying climate conditions.

Based on Kamehameha Schools' management of its lands under Kamehameha Schools' ʻĀina Pauahi Natural Resources Management Program, Hāloa ʻĀina Forest Restoration Agreement, and the Three Mountain Alliance Management Plan, we are considering excluding Kamehameha Schools lands from the final critical habitat designation for the ʻiʻiwi.

South Kona Unit – Kealia Ranch—The Kealia Ranch manages 1,758 ac (712 ha) of land included in the proposed designation for ‘i‘iwi within the South Kona Unit. Conservation management activities on Kealia Ranch lands include those associated with NRCS’ Environmental Quality Incentive Program land stewardship projects, as well as cooperation with government partners for wildlife conservation on Kealia Ranch and adjacent lands.

Kealia Ranch is a 12,000-ac (4,856-ha) working cattle ranch founded in 1915, located in the South Kona District on leeward Mauna Loa Volcano on the island of Hawai‘i. Kealia Ranch has availed itself of funding and technical assistance from the NRCS for projects on Kealia Ranch to conserve ground and surface water, increase soil health, and reduce soil erosion and sedimentation (Natural Resources Conservation Service 2022, entire). The Kealia Ranch is an immediate neighbor to the Hakalau National Wildlife Refuge, Kona Forest Unit, and cooperates with the refuge in areas such as weed control, wildfire suppression, emergency situations, and security (Kealia Ranch 2022, entire). From 1993–1998, Kealia Ranch participated in conservation efforts with the Service to save from extinction the last remaining population of ‘alalā or Hawaiian crow (*Corvus hawaiiensis*) in the wild. Kealia Ranch has worked with the University of Hawai‘i College of Tropical Agriculture and Human Resources on research projects and trials on Kealia Ranch lands and cooperates annually with the U.S. Geological Survey (USGS) on research for volcanic activity and ground swell of Mauna Loa (Kealia Ranch 2022, entire). The conservation actions of Kealia Ranch benefit forest and shrubland habitat ‘i‘iwi use for nesting and foraging by promoting soil and water conservation, weed control, and wildfire suppression.

Based on Kealia Ranch’s implementation of water and soil conservation projects through NRCS’ Environmental Quality Incentives Program and cooperation with neighbors in areas including nonnative plant control and wildfire suppression, we are

considering excluding Kealia Ranch lands from the final critical habitat designation for the ʻiʻiwi.

South Kona Unit – The Nature Conservancy, Kona Hema Preserve—The Nature Conservancy owns 5,700 ac (2,307 ha) of land included in the proposed designation for ʻiʻiwi within the South Kona Unit. Conservation management activities on these lands include those associated with the Forest Stewardship Management Plan for The Kona Hema Preserve and the Three Mountain Alliance Management Plan, December 31, 2007.

The Kona Hema Preserve is comprised of 8,076 ac (3,268 ha) in four management units. Management activities on the Kona Hema Preserve are to prevent degradation of native forest and shrubland by reducing feral ungulate damage; to improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of nonnative plants; to conduct small mammal control and reduce the negative impacts of small mammals where possible; to monitor and track the biological and physical resources in the preserve and evaluate changes in these resources over time, and encourage biological and environmental research; to prevent extinction of rare species in the preserve; to build public understanding and support for the preservation of natural areas; and to enlist volunteer assistance for preserve management and the protection of the resources from fires in and around the preserve. The Nature Conservancy is also a member of the Three Mountain Alliance, whose conservation actions include conserving unique endemic plants and animals; conducting watershed resource monitoring; controlling feral ungulates and invasive, nonnative plants; reestablishing native plant species; and conducting activities to reduce the threat of wildfire. The conservation actions of The Nature Conservancy Kona Hema Preserve benefit habitat ʻiʻiwi use for nesting and foraging by improved forest regeneration and reduction of breeding sites for introduced southern house mosquitoes that carry avian malaria, by control of feral ungulates, by nonnative plant control that improves

recruitment of native trees, and by small mammal control to reduce predation on nesting ‘i‘iwi. Wildfire management and response benefit forest and shrubland habitat ‘i‘iwi use for nesting and foraging by minimizing damage to these habitats by wildfire.

Based on The Nature Conservancy’s management of the Kona Hema Preserve under the Forest Stewardship Management Plan for The Kona Hema Preserve and the Three Mountain Alliance Management Plan, December 31, 2007, we are considering excluding The Nature Conservancy’s Kona Hema Preserve lands from the final critical habitat designation for the ‘i‘iwi.

North Kona Unit – Kamehameha Schools—The Kamehameha Schools owns two parcels (2,585 (1,046 ha) and 1,557 (630 ha)) of land included in the proposed designation for ‘i‘iwi within the North Kona Unit. Conservation management activities on these lands include those associated with the Kamehameha Schools’ ‘Āina Pauahi Natural Resources Management Program; the Paniolo Tonewoods, LLC, Forest Restoration Agreement with Kamehameha Schools; and the Three Mountain Alliance Management Plan, December 31, 2007.

Kamehameha Schools’ ‘Āina Pauahi Natural Resources Management Program implements Kamehameha Schools’ conservation land stewardship policy through the protection and conservation of natural resources, water resources, and ancestral places (Kamehameha Schools 2022, entire). Between 2000 and 2015, Kamehameha Schools increased its active stewardship of native ecosystems under the program from 3,000 ac (1,124 ha) to 136,000 ac (55,037 ha), which is 45 times the number of acres under Kamehameha Schools’ care in 2000, and includes lands within the North Kona Unit in this proposed critical habitat designation. Kamehameha Schools entered into an agreement in 2019, with Paniolo Tonewoods, LLC, to manage 1,300 ac (526 ha) of Kamehameha Schools lands upslope of Hōnaunau Forest Reserve that are mixed ‘ōhi‘a/koa forest (Big Island Video News 2019, entire). Kamehameha Schools is also a

member of the Three Mountain Alliance, whose conservation actions include conserving unique endemic plants and animals; conducting watershed resource monitoring; controlling feral ungulates and invasive, nonnative plants; reestablishing native plant species; and conducting activities to reduce the threat of wildfire. The conservation actions of Kamehameha Schools benefit habitat ‘i‘iwi use for nesting and foraging by promoting forest regeneration and reduction of mosquito breeding sites; weed control that improves recruitment of native trees; fire suppression that benefits forest and shrubland habitats by minimizing damage to these habitats by wildfire; and koa silviculture that conserves and enhances forest and shrubland habitat ‘i‘iwi use for nesting and foraging, increases soil-water retention capacity, and improves ecosystem resilience to drying climate conditions.

Based on Kamehameha Schools’ management of its lands under Kamehameha Schools’ ‘Āina Pauahi Natural Resources Management Program; Paniolo Tonewoods, LLC, Forest Restoration Agreement with Kamehameha Schools; and the Three Mountain Alliance Management Plan, December 31, 2007, we are considering excluding Kamehameha Schools lands from the final critical habitat designation for the ‘i‘iwi.

Summary of Exclusions Considered Under 4(b)(2) of the Act

We have reason to consider excluding the following areas under section 4(b)(2) of the Act from the final critical habitat designation for the ‘i‘iwi. Table 2 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat but for which we are considering possible exclusion under section 4(b)(2) of the Act from the final critical habitat rule.

TABLE 2. Areas considered for exclusion by critical habitat unit.

Unit	Owner	Areas Considered for Exclusion, in Acres (Hectares)	Associated Plans and Agreements
Alakaʻi Plateau	Alexander & Baldwin, Inc.	203 (82)	Kauaʻi Watershed Alliance Management Plan Update, Overall Management Strategy; Kauaʻi Forest Bird Recovery Project
Kula	Kaʻonoʻulu Ranch	830 (336)	Kula Forest Reserve and the Papaʻanui Tract of Kahikinui Forest Reserve Management Plan; Leeward Haleakalā Watershed Restoration Partnership
East Haleakalā	Haleakalā Ranch	1,113 (451)	The Nature Conservancy's Waikamoi Preserve, Long-Range Management Plan, Fiscal Years 2019–2024; Leeward Haleakalā Watershed Restoration Partnership; Maui Forest Bird Recovery Project
East Haleakalā	East Maui Irrigation, Inc.	2,327 (942)	The Nature Conservancy's Waikamoi Preserve, Long-Range Management Plan, Fiscal Years 2019–2024; East Maui Watershed Partnership; Maui Forest Bird Recovery Project
Windward Hawaiʻi	Kamehameha Schools	13,308 (5,386)	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Three Mountain Alliance Management Plan, December 31, 2007; Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement
Windward Hawaiʻi	Department of Hawaiian Homelands	4,035 (1,633)	Department of Hawaiian Homelands' ʻĀina Mauna Legacy Program; Mauna Kea Watershed Alliance
Windward Hawaiʻi	Kūkaʻiau Ranch	87 (35)	Kūkaʻiau Ranch Conservation Easement with The Nature Conservancy and Hawaiian Island Land Trust; Mauna Kea Watershed Alliance
Windward Hawaiʻi	Parker Ranch Waipunalei, LLC	1,449 (586)	Parker Ranch Sustainable Forestry Initiative; Mauna Kea Watershed Alliance

Unit	Owner	Areas Considered for Exclusion, in Acres (Hectares)	Associated Plans and Agreements
Kaʻū	The Nature Conservancy	399 (162)	Kaʻū Preserve Hawaiʻi Island, Long-Range Management Plan, Fiscal Years 2013–2018; Three Mountain Alliance Management Plan, December 31, 2007
South Kona	Kealakekua Mountain Reserve, LLC	5,801 (2,348)	Kealakekua Mountain Reserve Forest Legacy Program Conservation Easement with the Hawaii's Department of Land and Natural Resources
South Kona	Kamehameha Schools	16,209 (6,560)	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Kamehameha Schools Hāloa ʻĀina Forest Restoration Agreement; Three Mountain Alliance Management Plan, December 31, 2007
South Kona	Kealia Ranch	1,758 (712)	NRCS Environmental Quality Incentive Program Projects
South Kona	The Nature Conservancy	5,700 (2,307)	Forest Stewardship Management Plan for The Kona Hema Preserve; Three Mountain Alliance Management Plan, December 31, 2007
North Kona Unit	Kamehameha Schools	4,142 (1,676)	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Paniolo Tonewoods, LLC, Forest Restoration Agreement with Kamehameha Schools; Three Mountain Alliance Management Plan, December 31, 2007
Total Area Considered for Exclusion		57,361 ac (22,316 ha)	

In conclusion, for this proposed designation, we have reason to consider excluding the areas identified above based on other relevant impacts. We specifically solicit comments on the inclusion or exclusion of such areas. However, if through the public comment period we receive information that we determine indicates that there are potential economic, national security, or other relevant impacts from designating

particular areas as critical habitat, then as part of developing the final designation of critical habitat, we will evaluate that information and may conduct a discretionary exclusion analysis to determine whether to exclude those areas under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19. If we receive a request for exclusion of a particular area and after evaluation of supporting information we do not exclude, we will fully describe our decision in the final rule for this action.

Required Determinations

Clarity of the Rule

We are required by Executive Orders (E.O.s) 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 et seq.), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include

manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine whether potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical

habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. In our draft economic analysis, we did not find that this proposed critical habitat designation would significantly affect energy supplies, distribution, or use. The proposed critical habitat units are in remote wilderness areas that are not used for energy generation. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following finding:

(1) This proposed rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or Tribal governments" with two exceptions. It excludes "a condition of Federal

assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or Tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions are not likely to destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this proposed rule would significantly or uniquely affect small governments. Small governments would be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for ʻiʻiwi in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for ʻiʻiwi, and it concludes that, if adopted as proposed, this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we

requested information from, and coordinated development of this proposed critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the proposed rule does not have substantial direct effects either on the States, or on the relationship between the Federal Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that this proposed rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To

assist the public in understanding the habitat needs of the species, this proposed rule identifies the physical or biological features essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations. In a line of cases starting with *Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995), the courts have upheld this position.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5,

1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. We have determined that no Tribal lands fall within the boundaries of the proposed critical habitat designation for the ʻiʻiwi, so no Tribal lands would be affected by the proposed designation.

References Cited

A complete list of references cited in this proposed rule is available on the internet at *https://www.regulations.gov* and upon request from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Pacific Islands Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361-1407; 1531-1544; and 4201-4245, unless otherwise noted.

2. In § 17.11, in paragraph (h), amend the table "List of Endangered and Threatened Wildlife" by revising the entry for "Iiwi (honeycreeper)" under BIRDS to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* * * * * * *				
BIRDS				
* * * * * * *				
Iiwi (honeycreeper)	*Drepanis coccinea*	Wherever found	T	82 FR 43873, 9/20/2017; 50 CFR 17.95(b).[CH]
* * * * * * *				

3. In § 17.95, amend paragraph (b) by adding an entry for "Iiwi (honeycreeper) (*Drepanis coccinea*)" following the entry for "Crested Honeycreeper (Akohekohe) (*Palmeria dolei*)" to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds.*

* * * * *

Iiwi (honeycreeper) (*Drepanis coccinea*)

(1) Critical habitat units are depicted for Kauai, Maui, and Hawaii Counties, Hawaii, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of iiwi consist of the following components:

(i) Multiple patches of seasonally flowering trees, including ohia (*Metrosideros polymorpha*) and mamane (*Sophora chrysophylla*), and/or shrubs that collectively provide the iiwi a year-round nectar source. The number of patches of flowering trees and

shrubs needed may be few if patch size is large. For example, a few large contiguous areas of forest containing seasonally asynchronously flowering trees and shrubs that are several square miles (several kilometers) in size, or many small patches with concentrated, seasonally asynchronously flowering trees and shrubs would meet the iiwi's year-round nectar source needs. Patches can be close together, such as individual flowering trees a few hundred feet (hundred meters) apart in an open landscape, or far apart, such as large forest patches of seasonally asynchronous flowering trees or shrubs as much as several miles (several kilometers) apart.

(ii) Tall stature trees (height taller than 26 feet (8 meters)) characteristic of a mesic and wet forest ecosystem, including ohia and koa (*Acacia koa*) trees for nesting.

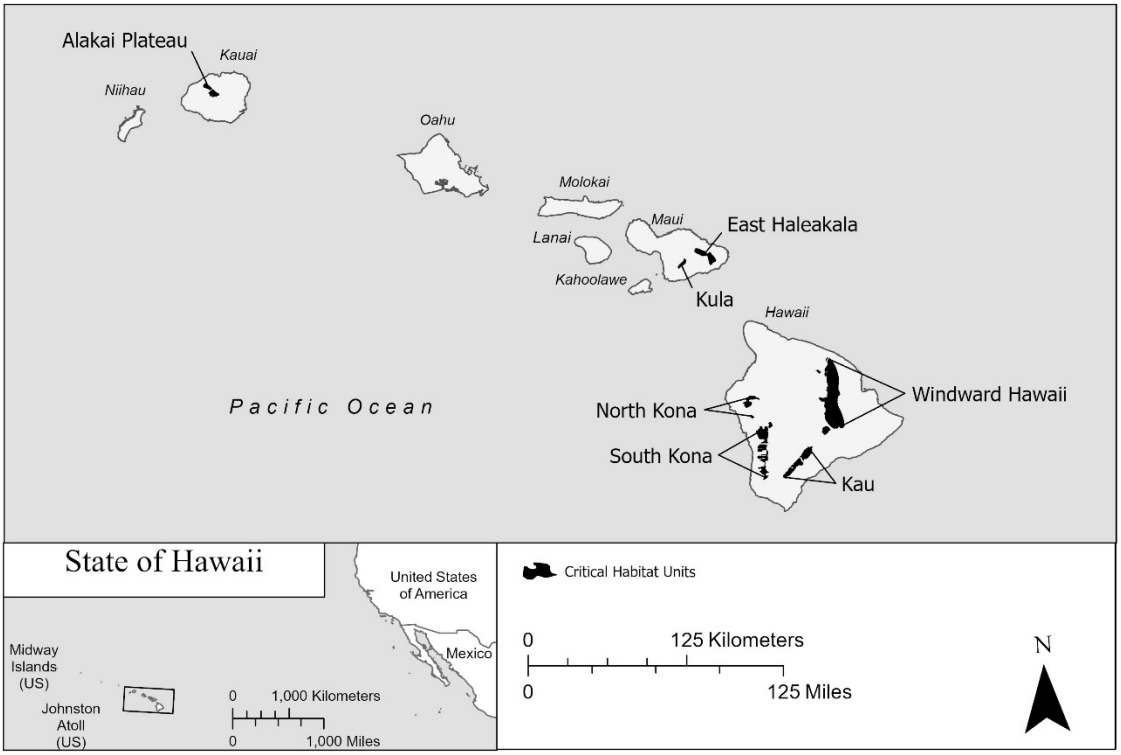
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

(4) Data layers defining map units were created using summaries of abundance, distribution, and trends compiled by the U.S. Geological Survey. Where this summary was incomplete, specifically within the Kula region of Maui, we used information provided by the National Park Service and the Maui Forest Bird Recovery Project. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at *https://www.regulations.gov* at Docket No. FWS-R1-ES-2022-0144, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

Figure 1 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (5)

Critical Habitat for Iiwi (*Drepanis coccinea*): Overview

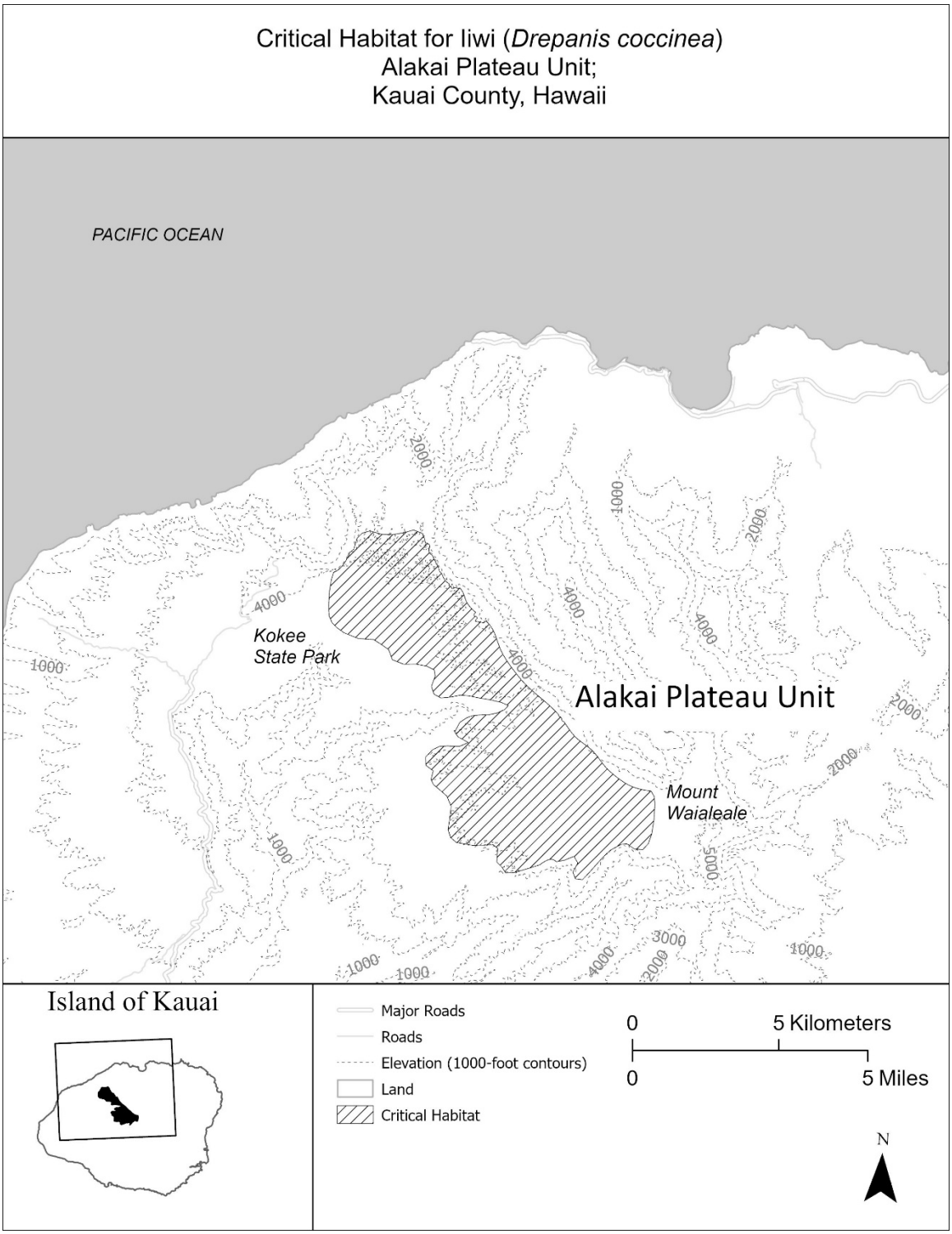


(6) Alakai Plateau Unit: Kauai County, Hawaii.

(i) The Alakai Plateau Unit comprises 12,510 acres (ac) (5,063 hectares (ha)) of occupied habitat in Kauai County. This unit consists of State and privately owned lands.

(ii) Map of Alakai Plateau Unit follows:

Figure 2 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (6)(ii)

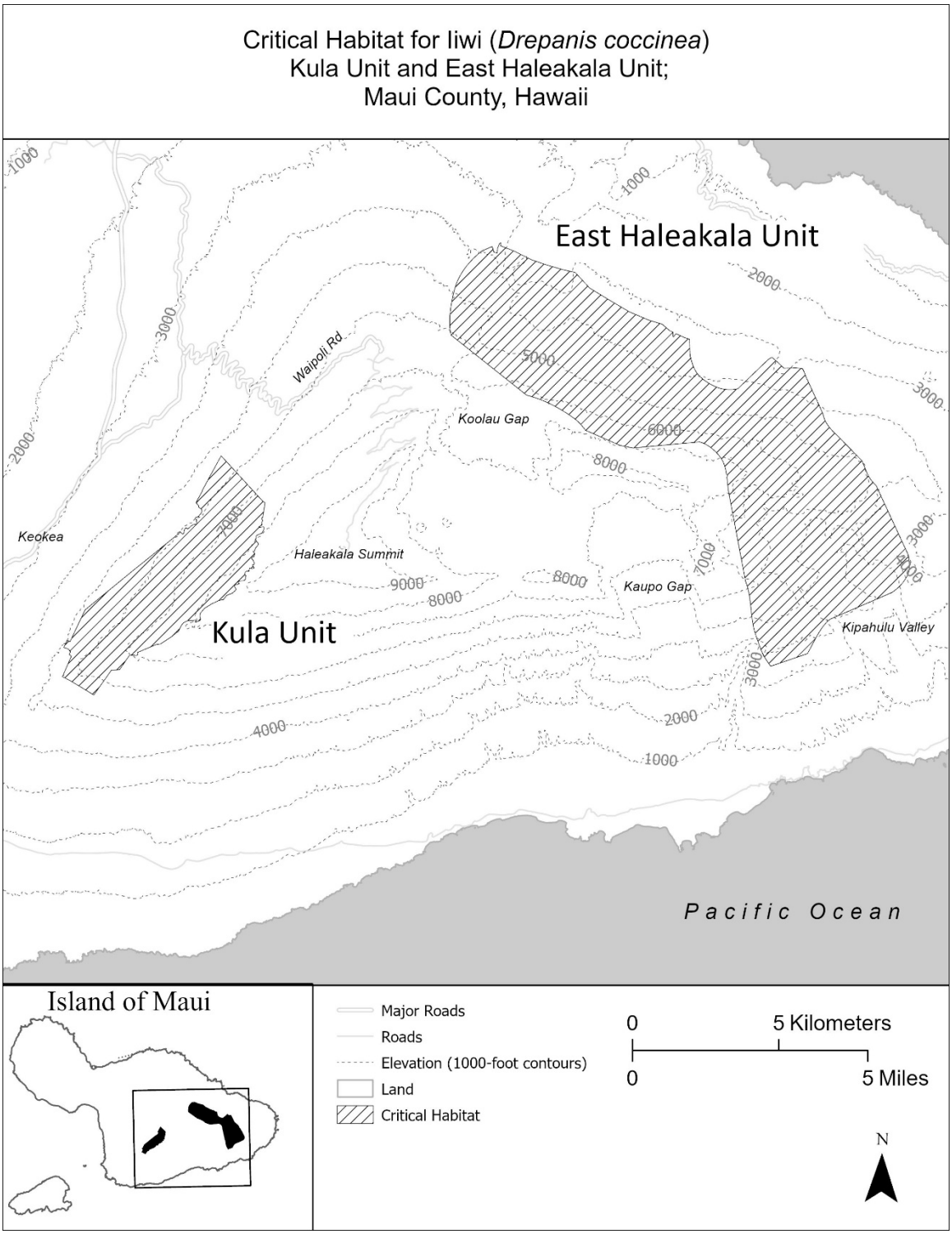


(7) Kula Unit: Maui County, Hawaii.

(i) The Kula Unit comprises 5,226 ac (2,115 ha) of occupied habitat in Maui County on the west slope of Haleakala Volcano. This unit consists of State and privately owned lands.

(ii) Map of Kula and East Haleakala Units follows:

Figure 3 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (7)(ii)



(8) East Haleakala Unit: Maui County, Hawaii.

(i) The East Haleakala Unit comprises 19,393 ac (7,848 ha) of occupied habitat in Maui County on the northeast slope of Haleakala Volcano. This unit consists of lands owned by the National Park Service, the State of Hawaii, and private landowners.

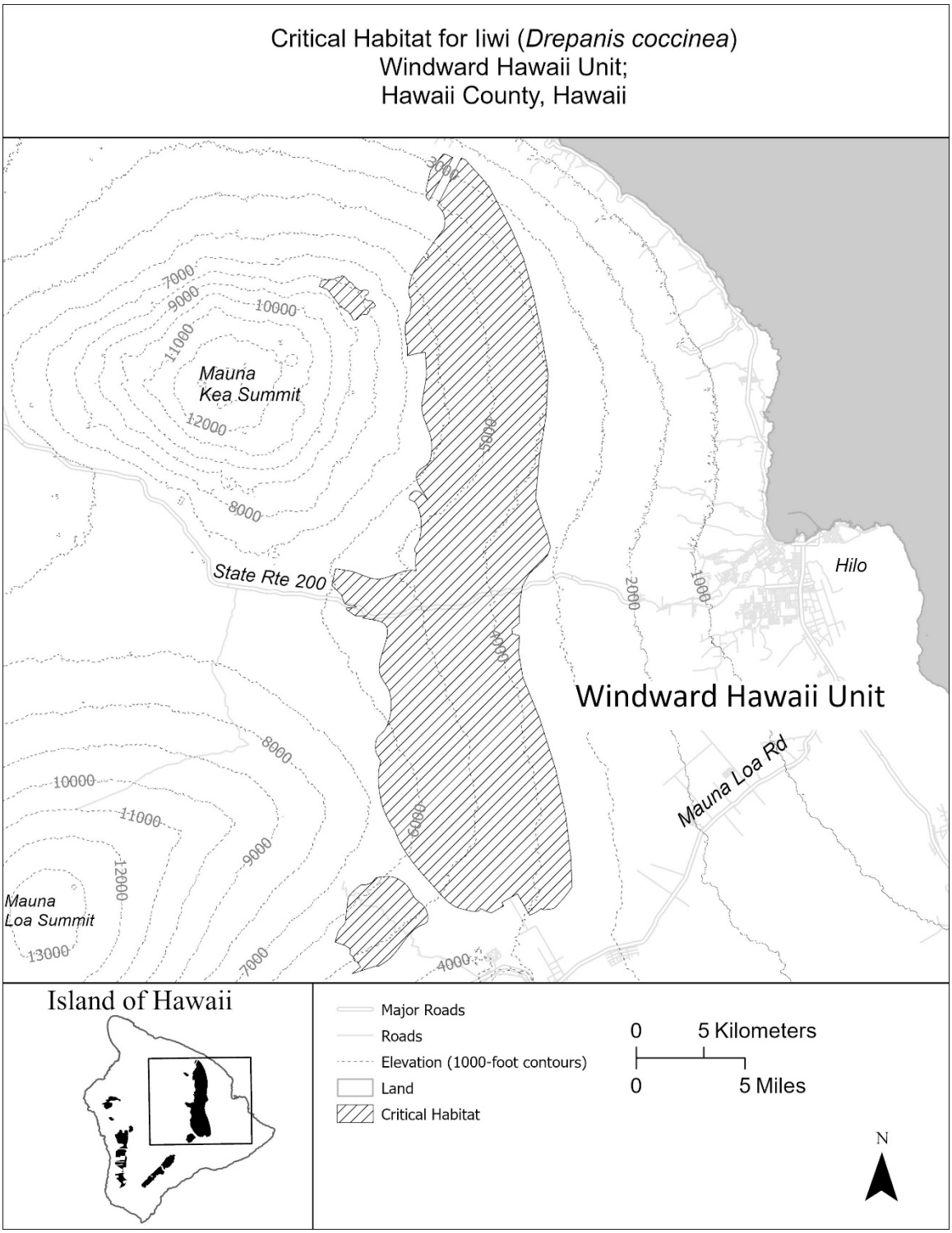
(ii) Map of East Haleakala Unit is provided at paragraph (7)(ii) of this entry.

(9) Windward Hawaii: Hawaii County, Hawaii.

(i) The Windward Hawaii Unit comprises 141,085 ac (57,095 ha) of occupied habitat in Hawaii County on the east slopes of Mauna Kea and Mauna Loa Volcanoes. The unit is comprised of one large area and three small disjunct areas that are near the northwest and south end of the larger area. This unit consists of lands owned by the National Park Service, the U.S. Fish and Wildlife Service, the State of Hawaii, and private landowners.

(ii) Map of Windward Hawaii Unit follows:

Figure 4 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (9)(ii)

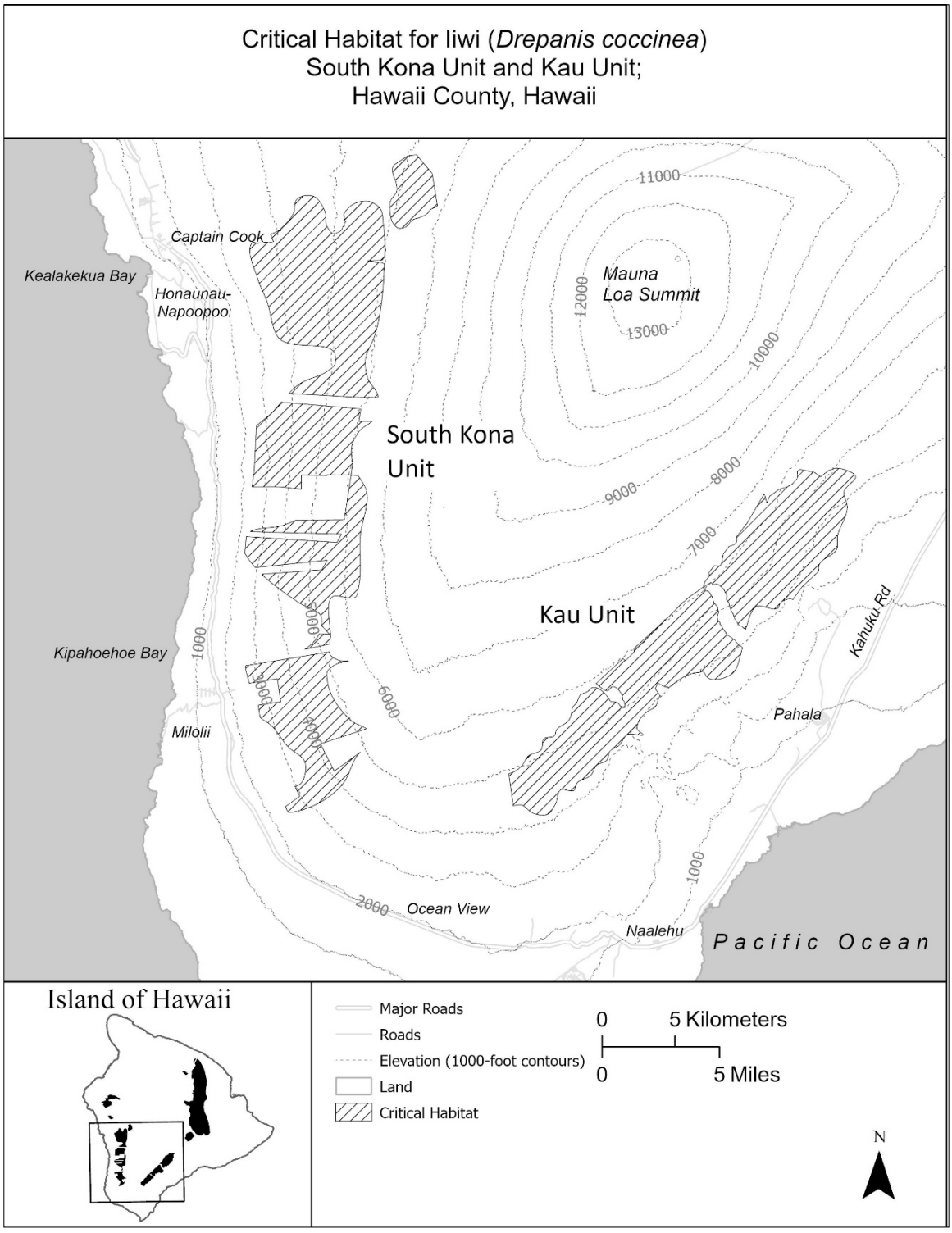


(10) Kau Unit: Hawaii County, Hawaii.

(i) The Kau Unit comprises 32,458 ac (13,136 ha) of occupied habitat in Hawaii County on the southeast slope of Mauna Loa Volcano. The unit consists of State and privately owned lands.

(ii) Map of Kau and South Kona Units follows:

Figure 5 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (10)(ii)



(11) South Kona Unit: Hawaii County, Hawaii.

(i) The South Kona Unit comprises 51,376 ac (20,791 ha) of occupied habitat in Hawaii County on the west slope of Mauna Loa Volcano. The unit is comprised of four roughly similar sized areas separated from each by distances of less than 1 mi (1.6 km). This unit consists of lands owned by the U.S. Fish and Wildlife Service, the State of Hawaii, and private landowners.

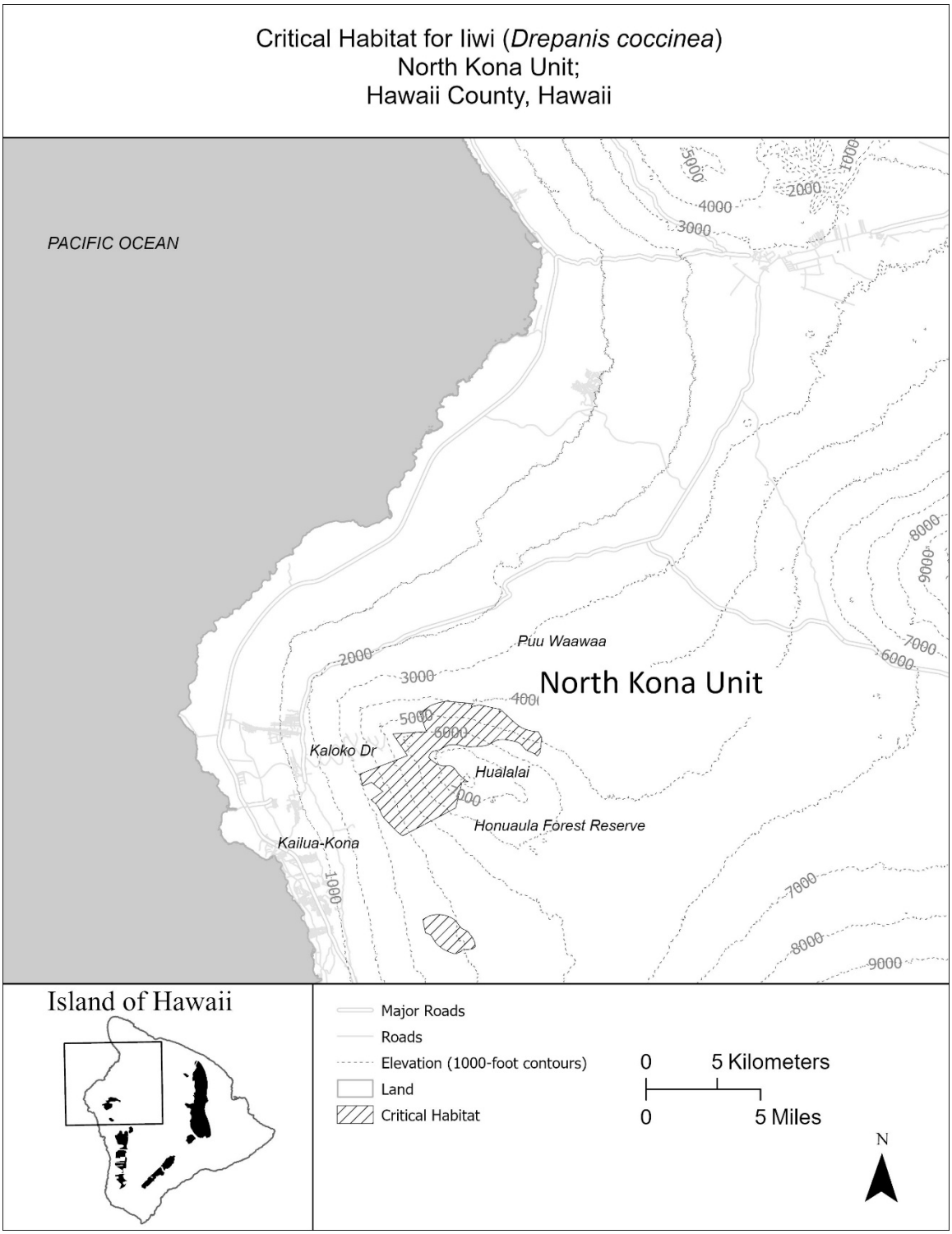
(ii) Map of South Kona Unit is provided at paragraph (10)(ii) of this entry.

(12) North Kona Unit: Hawaii County, Hawaii.

(i) The North Kona Unit comprises 13,599 ac (5,503 ha) of occupied habitat in Hawaii County on the north, west, and south slopes of Hualalai Volcano. This unit is comprised of one large area to the north and one smaller disjunct area to the south. This unit consists of State and privately owned lands.

(ii) Map of North Kona Unit follows:

Figure 6 to Iiwi (honeycreeper) (*Drepanis coccinea*) paragraph (12)(ii)



* * * * *

Martha Williams,
Director,
U.S. Fish and Wildlife Service.

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